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ABSTRACT

This report focuses on the role of the federal government as the chief vehicle for the expression of the national interest in postsecondary education. It is addressed not only to federal officials but to all those concerned with questions of national educational leadership. Two over-riding themes dominate. First, in addition to supporting access to college, and subsidizing research and manpower training in various areas, the federal government must shift its concern from encouraging growth to a new concern for effectiveness throughout postsecondary education. Second, the federal government must develop a new concern for the form of public support, for how decisions are made, and for the purposes to be achieved, in order to preserve conditions under which postsecondary education can remain viable and responsive. Attention and analysis must be focused not only on the levels of public support for postsecondary education, but on the purposes and forms of federal and state involvement as well. After the foreword and introduction, this document is divided into six sections: (1) The Implications of the Egalitarian Commitment; (2) The End of Guaranteed Social Mobility; (3) New Requirements for Effective Education; (4) New Political Realities; (5) The Federal Presence in Higher Education; and (6) The Federal Role in Postsecondary Education. An extensive bibliography is included. (Author/PG)

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NATIONAL POLICY AND HIGHER EDUCATION

Report of a Special Task Force
to the Secretary of Health, Education and Welfare

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HE004805

October 26, 1973

Hon. Sidney P. Marland, Jr.
Assistant Secretary for Education
Department of Health, Education, and Welfare
Washington, D.C. 20202

Dear Dr. Marland:

When the Report on Higher Education was released in March 1971, you asked that a second Task Force be created to recommend ways in which the Federal government could address the problems identified in that report as well as the reports of other commissions and task forces. You asked that we proceed according to the principles which had governed the first Task Force, in particular, that the Task Force should proceed independently, openly, and with a clear understanding that we were speaking to the Department, rather than attempting to speak for the Department.

In selecting a Task Force to meet this challenge, individuals were chosen for their ability to think creatively and constructively about the federal role in higher education. Several members of the first Task Force volunteered for the second effort, which ultimately comprised members from both institutions of higher education and various agencies of the Federal government: the U.S. Office of Education; the Office of the Secretary of Health, Education, and Welfare; the Office of Management and Budget; and the professional staff of the Congress.

As we began our work, we found that many others, both within and outside the government, were willing to participate in the development of ideas, in the analysis of data, and in criticism of drafts. Thus the Task Force has come to include a sizeable number of informal members, many of whom have participated fully in the generation of these recommendations.

We discovered early that generating recommendations for the various areas of federal involvement in higher education would require separate and detailed investigations and that prescription alone would not be sufficient. To help those involved achieve responsible and enduring change, we believed we should accompany our proposals with a full statement of rationale, which could be made public and subjected to the scrutiny of interested constituencies outside as well as within the Federal government. Thus we began the preparation of policy papers on various problem areas. Policy papers on Graduate Education, Data and Decision-Making in Higher Education, and a G.I. Bill for Community Service have already been released, and others are near completion.

In the course of developing these papers, we became convinced of the need to make explicit our perception of the new conditions affecting national policy, and our assumptions about the proper overall role of the Federal government. We therefore prepared a central, integrative report to serve as an introduction to our policy papers, as a summary of our major recommendations, and as a statement of our general philosophy on the broad directions federal policy should take. We are pleased to present you with this report, National Policy and Higher Education.

Though it is the product of extensive discussion and criticism within the Task Force, and among many knowledgeable people in post-secondary education, we have no illusions that it is a definitive statement. Rather, we hope it can serve as a vehicle for a continuing and constructive debate, within and outside the government.

We owe you a special vote of thanks. At every stage of this effort, you have supported without hesitation the idea of analysis and discussion as central to the on-going process of renewal of our national education policy. It has been a privilege for each of us to be involved with you.

Sincerely,

Frank Newman
Robert Andringa
William Cannon
Christopher Cross
Don Davies
Russell Edgerton
Martin Kramer
Bernie Martin

Attachment

FOREWORD

In March 1971, HEW published Report on Higher Education, a study by a nongovernmental task force chaired by Frank Newman of Stanford University. The purpose of this study was to assess, in general terms, how well higher education was meeting the needs of society in the 1970's. The Report did not propose solutions, but rather characterized problems from the perspective, not of the Federal government nor of educational institutions, but of an independent group, privately financed, acting in the public interest.

Following the release of the Report, we asked Frank Newman to take on a second and more difficult assignment -- to recommend some specific ways in which the Federal government could address the problems the Task Force had identified. Frank and I agreed that he should constitute a second Task Force according to the same principles by which he had led the first. He could draw upon whomever he wished, inside or outside the government, without concern for representing any particular group or special interest. Apart from modest funds to hire student research assistants and draw upon consultants for specific expertise, he and other Task Force members were to serve without compensation and without being relieved from their other duties and responsibilities. The Task Force was to operate as openly as possible, involving all interested parties. Frank and I were in complete agreement that the Task Force's role should not be one of representing HEW, but of developing

constructive proposals which could be considered, within and without the government, as recommendations for federal action.

This document is the main report of the second Task Force. It integrates a series of proposals submitted to the Department by the Task Force. I commend it to the attention of federal officials throughout the Executive Departments and the Congress, and to all interested parties outside government whose participation is indispensable to any meaningful reexamination of the federal role in higher education. Over the coming months, agency heads within the Education Division of HEW will be reviewing this proposal. We are interested in the comments and reactions of all interested parties.

I would also like to acknowledge our appreciation to the members of the Task Force and all those who participated in their deliberations and contributed valued counsel in the drafting and review of this second report. We are especially indebted to Frank Newman, whose refreshing views and extraordinary energy have again enabled him to challenge us to reexamine existing policies in the light of changing social needs.

S.P. Marland, Jr.
Assistant Secretary
for Education

October 26, 1973

INTRODUCTION

In the 1950's and 1960's, our nation made an unprecedented commitment to extend opportunities for higher education to a large portion of the American population. Now, in the decade of the 1970's, we are challenged by the consequences of this commitment. American higher education has developed a dedication to social equity and individual opportunity as well as a level of excellence in scholarship unmatched in our own history or in the world. But problems of the most fundamental nature are yet to be faced.

The expansion of enrollments has created demands that higher education fulfill a new social purpose. When higher education served only the few, it was sufficient to identify those among the few who had academic talent and prepare them for positions of social and professional leadership. But now that over half of all young Americans as well as millions of older Americans are entering some form of college, higher education has assumed a new purpose -- that of actually educating all who enter so that each individual might fulfill his or her own potential. The implications of this new social purpose for the process of education are enormous.

As the numbers of students entering and graduating from higher education has expanded, it has become harder and harder for colleges to guarantee to their graduates privileged entry

into careers of high status and income. Thus, the new relationship developing between college-going and mobility is making it necessary to rethink why individuals should attend college, and why society should invest such a sizeable share of its resources in higher education.

Expanded enrollments have brought to higher education a population which is not only larger than before, but far more diverse. It includes individuals from socio-economic, ethnic and age groups previously underrepresented. It includes millions of individuals with differing goals and differing styles of learning. This, in turn, has created an urgent need for a greater diversity of paths to a college education and for a broader range of educational services. The rapidly expanding universe of educational programs beyond the traditional colleges and universities of higher education is only now being recognized as part of a broader range of institutions called post-secondary education, the boundaries of which are still unclear.

Finally, expanded enrollments have led to a twelve-fold increase in expenditures on higher education in the past twenty-five years. This, in turn, has led to increased public and governmental interest in higher education, to growing demands for performance and accountability, and to new forms of organization and decision-making. Increasingly, institutions are becoming enveloped in a larger system of relationships with multi-campus central offices and statewide agencies. Increasingly, the

process of higher education is becoming entangled in a thicket of bureaucratic regulation -- from professional and accrediting agencies, unions, the courts, state governments and the federal government.

None of the implications of these conditions has been extensively debated nor accepted as premises for a new national policy toward post-secondary education.

Indeed, not since Sputnik has the American public engaged in thoughtful, extensive discussion of the national interest in post-secondary education. Student unrest became an important political issue in the late 1960's, as did the question of access for minority students. In the early 1970's, the institutions of higher education themselves raised the issue of their state of financial distress. Yet none of these issues provoked a thoughtful debate about national educational policy.

The closest contemporary analogy to the catalytic force of Sputnik was the debate leading up to the passage of the Education Amendments of 1972. The need to re-authorize federal legislation created a major political struggle over the directions of federal student assistance and the merits of initiating new general federal support to institutions of higher education. Yet even such a fundamental revision of the federal role as this was debated only among a narrow circle of interested educational and political leaders. A temporary agreement on the nature of the federal role was achieved, but fundamental issues were

deferred, and a new commission to study the financing of post-secondary education was created to establish a forum for further analysis. A new deadline for the determination of national post-secondary education policy occurs in less than two years, when current legislation will expire.

More important, however, than deadlines for legislative action is the fact that across the country states and institutions are moving past the point of no return on crucial decisions. Those decisions are being and will be made, but often by default. In particular, the drift toward centralized and detailed controls could, unless thoughtfully analyzed and new means found for accountability, undermine the capacity of the institutions of higher education to remain responsive and capable of adapting to changing conditions.

We believe there is an urgent need for debate of these issues, not just in Washington, but in the state capitals and on every campus. It is with this in mind that the Task Force makes its recommendations. The report focuses on the role of the Federal government as the chief vehicle for the expression of the national interest in post-secondary education. But it is addressed not only to federal officials but to all those concerned with questions of national educational leadership. Two overriding themes dominate.

First, in addition to supporting access to college, and subsidizing research and manpower training in various areas,

the Federal government must shift its concern from encouraging growth to a new concern for effectiveness throughout post-secondary education.

Second, the Federal government must develop a new concern for the form of public support, for how decisions are made, and for the purposes to be achieved, in order to preserve conditions under which post-secondary education can remain viable and responsive. Attention and analysis must be focused not only on the levels of public support for post-secondary education, but on the purposes and forms of federal and state involvement as well.

Higher education is not, and should never become, a "system" like those established for compulsory education at the elementary and secondary levels. Higher education is a set of institutions voluntarily attended by individuals who have different talents and abilities and who seek different things from their educational experience. These institutions are already more homogenous in their missions and academic programs and more uniform in their teaching and administrative procedures than they should be if they are to maximize their effectiveness as centers of thought and learning. Thus, perhaps our greatest challenge in the 1970's will be to develop forms of public support and accountability, based not on the image of common institutions providing common educational experiences, but on the image of differentiated institutions reaching out for ever more effective approaches to serve an increasingly diverse clientele.

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I. THE IMPLICATIONS OF THE EGALITARIAN COMMITMENT

It is one thing to espouse equal access to college as a goal toward which the nation strives. It is another thing entirely to deal with the implications of that policy as a reality. Today, American society has largely achieved the goal of access, but has yet to make the adjustments in public policy necessary for an era of mass educational opportunities.

Three Eras of Social Purpose in Higher Education[1]

For a long period following the founding of the first colleges, higher education in this country, as in Europe, could be described as aristocratic, being essentially devoted to receiving the children of the well-to-do and making of them a competent class of business leaders, professionals, teachers, clergy and government officers.

What made higher education in America more democratic than in Europe was the year-by-year expansion of access and the ease with which new colleges could be founded. Any well-organized group could, if excluded from the establishment of the day, found a college with its own specific mission.[2] The beginnings of public higher education, with institutions such as City University of New York in the urban centers or the land-grant colleges in the newly-settled areas, opened further opportunities.[3]

Still, it is important to keep in mind that by 1900 only about one in twenty-five young Americans entered college.[4] While

several of the major state universities had open access, it was more open in theory than in fact. Though any high school graduate was eligible for entrance, most denied themselves the opportunity by assuming they were not academically or socially "college material," and of those who chose to enter, a sizeable proportion was flunked out.[5]

Steadily the aristocratic concept weakened, and by the 1930's, American higher education was well into a second, or meritocratic period.[6] Colleges increasingly sought to select able students whatever their background, and make of them a new elite based not on birth but on talent. In 1954, one commission summarized this revised attitude: "The nation needs to make effective use of its intellectual resources. To do so means to use well its brightest people whether they come from farm or city, from the slum section or the country club area, regardless of color or religious or economic differences but not regardless of ability."[7]

After World War II, the spread of meritocratic values accelerated, and simultaneously the concept of merit became closely tied to ability as measured by narrowly academic forms of grading and testing. Colleges and universities began to sort themselves according to the quality of their research and the selectivity of their admissions policies. Such selectivity required much wider use of nationally-normed tests and other means of rejecting applicants than had previously been the case.

Meritocratic values, as measured by grades and test scores, still dominate. But by the middle 1960's, higher education began moving into a third period, one which might be called egalitarian. Increasingly, the American public has assumed that everyone should have a chance at a college education. In addition to selecting the meritorious in terms of demonstrated narrowly academic potential, colleges are now expected to give each individual a chance to fulfill his or her individual potential. The goal has become, in the terms put forward in one widely noted statement, to "make the national purpose serve the human purpose: that every person shall have the opportunity to become all that he or she is capable of becoming. We believe that knowledge is essential to individual freedom and to the conduct of a free society. We believe that education is the surest and most profitable investment a nation can make."[8]

Participation in American post-secondary education is still far from being universal. Access rates still differ significantly by socio-economic status and by state.[9] But numerous milestones mark progress toward egalitarian goals:

--The continual rise in the rate of college attendance, to the point that more than half of young Americans enter some institution of higher education, and in some states over 70%![10]

--The development of community colleges, which now enroll over two and a half million students.[11]

--The response in the 1960's to the needs of minorities, almost doubling their enrollment since 1967.[12]

--The opening of new institutions focused on the needs of the least advantaged, including those based on newly-noticed ethnic groups.[13]

--The decisions of the City University of New York in 1970 to provide open access to institutions beyond the community college level.[14]

--The establishment of open universities to create new opportunities for students unable to attend a conventional campus.[15]

--The shift of public interest in student aid from concern with students of high academic ability (through programs such as the National Merit Scholars) to helping those in economic need (through programs such as Educational Opportunity Grants).[16]

--New federal legislation implying that all young Americans are entitled to financial assistance for post-secondary opportunities.[17]

As the interest of society shifts toward egalitarian goals, new and profound issues of public educational policy are raised. What is the responsibility of society toward those students for whom the traditional style of teaching and learning is not appropriate? How do we judge an individual's progress or an institution's success? Where access must be restricted, on what basis should selections be made? What kinds of educational experiences in what types of institutions should be recognized as a legitimate part of post-secondary education?

Given their importance in higher education, federal policies concerning the eligibility of students and institutions for assistance, the level of resources provided, the accreditation of institutions and the development of tests for evaluating student performance must all be altered to reflect the new realities of public philosophy toward post-secondary education.

Access Alone is Not Enough

As equality of opportunity was understood in the 1950's and 1960's, both the college and society were given relatively limited roles: The role of the college was to be available to those who met its standards; society was to provide the funds for new colleges and for student aid. Criteria for success and failure were based on the entry of, but not necessarily the education of, the individual student.

This minimal formulation of equality of opportunity, however, turned out to be as difficult in practice as it was simple in theory. The student was given a chance to compete, but within the framework of goals and rules adapted from institutions designed to serve a much more limited group of students. Access for most new students was soon followed by attrition. Despite the avowed intention of three-fourths of the entering freshmen at the new community colleges to obtain a bachelor's degree, for example, only about one third complete even a two-year program and even fewer transfer to a four-year college.[18]

To close the gap between public philosophy and educational performance, the national concern must move beyond the focus on access to concern with the effectiveness of the educational process in relation to the individual. But what are realistic goals for an increasingly egalitarian era? First, we believe there are some goals which are not appropriate.

The goal cannot be equality of results,[19] for students have

differing needs, aims, and abilities. In elementary education, there is a broad social purpose served by encouraging students to develop common skills -- mastery of the language, knowledge of civics, familiarity with mathematics -- and by the sharing of common social experiences. But even here, in a system depending on compulsory attendance, with common textbooks, with the student as the directed party, and with carefully structured age progressions, equality of results seems an elusive goal.

Post-secondary education does not attempt to approximate the unity of the common school. Post-secondary education is a group of institutions attended on a voluntary basis. Students come not only with differing abilities and motivations, but with differing goals. How can there be equality of results between an 18-year-old student studying nursing to prepare for a career and a 40-year-old, fully engaged in a career, studying psychology in order to develop a new and broader outlook toward life? Even among 18-year-olds studying the same subjects, equality of results cannot be achieved through uniformity of experience, for the students' differences in abilities and styles of learning cannot be normed to produce a uniform experience.

Neither should the push toward egalitarianism and the new interest in applying systematic management to the governance of post-secondary education lead to a uniformity of inputs. There is in the present political climate a danger of inadvertent

leveling. Graduate education does cost more than undergraduate, just as teaching physics costs more than history, vocational education more than liberal arts, medicine more than training in law. This does not mean that post-secondary education should train all historians and no physicists, all liberal arts majors and no computer technicians, all lawyers and no doctors. Incentives are needed to make all programs more effective in their use of resources, but one should look for differing results and expect differing costs.

While public policy cannot have as a goal equality of results and should not have as a goal equality of inputs, we believe it should encourage much more than simply access to some institution labeled "college." What we believe is an appropriate goal of public policy beyond access, is the provision of opportunity for more meaningful choices among many forms of post-secondary education. Particularly for those whose educational capabilities and interests do not square with the existing institutions, this must go beyond the simpler concept of equality of access put forward a decade ago. It requires the resolution of a set of difficult new issues.

The New Domain of Post-Secondary Education

It used to be easier to define what constituted higher education. There were colleges, universities and vocational schools. Higher education consisted of the first two. College

students were viewed as those attending the first two classes of institutions. Today the spectrum from research university to proprietary vocational school is close to continuous, and a new term, "post-secondary education," has come into use to encompass the broader range of institutions, difficult as it is to fix the limits of that term.

As community colleges developed, encompassing both liberal arts from the traditional college and vocational studies from the vocational or technical schools, the old distinction began to blur. The acceptance of the community college as "college" has led, in turn, to a new opportunity for legitimacy for proprietary schools.[20] It is difficult to see why someone should not be a legitimate "student" while studying computer programming at a proprietary school if someone else is a "student," counted in the national statistics and eligible for state or federal student aid, because he is studying computer programming at a community college. Both types of institutions have been growing rapidly -- much more rapidly than the traditional four-year colleges and universities. Today there are more than 1,100 community college campuses with over two and a half million students and more than 10,000 proprietary schools enrolling almost two million students.[21]

Concurrently, there has been a movement toward non-traditional studies. Campus-based colleges such as Goddard, the University of South Florida, Brigham Young University, Roosevelt University, or the State University at Brockport, have established external

programs for non-campus-based students. (A few, such as the University of Oklahoma, have had them for years.) Now, non-campus-based or open learning systems such as Empire State, Minnesota Metro or the University Without Walls have been established and many more are on the drawing boards.[22]

Research institutes such as the Rand Corporation and Arthur D. Little have begun granting degrees. Large corporations such as Xerox, Motorola, IBM, or GE have developed extensive educational centers. The Department of Agriculture Graduate School provides opportunities for continuing education for federal employees and others. The Armed Forces operate a geographically dispersed and educationally diverse system. The College Entrance Examination Board has announced a program to help libraries become learning centers where adults can earn credits toward college degrees. A number of newspapers are conducting a program in American studies for which readers will be able to obtain credit at cooperating colleges. Education for personal development and cultural enrichment is offered by still other institutions -- language schools, zoological gardens or the Esalen Institute. The total enrollment in all programs beyond high school has been estimated to be as high as 50 or 60 million.[23]

How much of this should be encompassed by the term "post-secondary education"? How does the Federal government determine what is beyond the pale, ineligible for participation in programs of student aid, institutional support or research funding?

Which institutions and students should be included in the federal statistics, or affected by federal regulation? Surely not every institution that claims to educate someone should be eligible.

We believe that the recognized universe of post-secondary education must be broad in an era of egalitarianism, and that the old domain of higher education is not broad enough for the education of the present spectrum of students. The relationship between accrediting and eligibility for federal funds must be redefined to meet today's circumstances.[24] Federal statistics and the national concern must encompass many of the newly-recognized institutions.[25]

Excellence in an Egalitarian Era

As the number of students increases and as the domain of post-secondary education becomes broader, there is growing concern among educators that all this will lead to a lowering of academic standards. We agree that unless some serious thinking is done, the drive for more open opportunity may well result in a dilution of standards.[26] But no matter how egalitarian post-secondary education becomes, striving for measures of excellence is essential for effectiveness. Considering the new goals of post-secondary education, how is excellence measured for the institution and for the student?

Much of the measuring of both -- at least for undergraduate education -- presently rests on a myth of excellence as determined by selective admission and time "in residence" measured in terms

of credit hours. For the best institutions this is a reasonably safe approach since they are almost certain to get out what they put in, bright students, and are hardly likely to be criticized on those grounds. But even the institutions most skilled at this practice, the great research universities, do not follow these same standards for measuring the two activities they regard as critical -- scholarly research and the awarding of major graduate or professional degrees. Measurement of the quality of research depends instead upon peer review and competitive grants. Few universities would be prepared to award major graduate degrees on the basis of piling up a sufficient number of credit hours without any orals or dissertation, clinical rounds, or exposure to the case study method.

When a small percentage of the age group entered college, the time-based system probably did no major harm, since most students were fully able to educate themselves despite its limitations. But, as more and more of the age group enters college, the continuance of the time-exposure, credit hour system of measurement will mean that soon only persistence will matter as to who gets a degree. Gradually it will be apparent to all that standards for educational credentials are not relevant, and, in fact, the attacks on the current value of a degree have already begun.[27]

We believe it is inappropriate to try to preserve the old system. Rather it is time to begin the shift from time-based exposure in measuring the progress of the student and from

dependance on selectivity in admissions in measuring the effectiveness of the institutions. We believe there must be measures of excellence, but in an educational community as broad and diverse as now exists, that there must be many measures, each of which is relevant to the students and institutions for which it is used.

Judging Institutional Effectiveness

How one views the social purpose of college has profound implications for determining what colleges should do and how well they are succeeding. Colleges today are judged as effective or ineffective based on the selectivity of the admissions process and the share of the graduating class gaining admission to the best graduate schools. A regular pyramid of institutional prestige has evolved. The great research universities are arranged in order at the top (their place assured because of both their selectivity in admissions and the prestige the academic world accords research and the granting of doctoral degrees). Then come the selective four-year colleges, followed by the state colleges. Community colleges barely make the bottom of the pyramid, while proprietary institutions are not even mentioned in polite academic society.

An ironic reminder of the irrelevance of all this to the question of education at the graduate level occurred in 1970. That year the American Council on Education's periodic survey of graduate education, based on the judgment of university faculty peers around the country, reported that the University of California,

Berkeley, French Department was fifth in the nation in "Quality of Graduate Faculty" and eighth in "Effectiveness of Doctoral Program." During the same year, the University of California system itself issued a scathing report implying the French Department was consciously misleading Ph.D. candidates and was structured to exploit both graduate and undergraduate students. Interestingly, neither report addressed the question of whether the graduate student in that department learned anything that later correlated with his effectiveness as a teacher or scholar in French.[28]

In fulfilling egalitarian objectives, one must not merely look to the quality of an institution's graduates, which may indicate only that the college recruited academically able freshmen, but rather to the contribution the college makes to the development of the student's abilities. What is the educational value added? A community college which helps bring about significant changes in students of lower initial skills should be judged more effective than a prestigious university which does little more than admit able students and graduate them undamaged four years later. A selective college or university should be judged effective only if it excels at the further intellectual and social development of the already-talented.[29]

We believe that there must be many pyramids, not just one. The great research universities of this country are essential to the nation's life. Competition among them in education and

research based on relevant measures of excellence is crucial. But theirs is not the only task. Just as it is impossible to compare the social contribution of an outstanding chemist with that of a leading lawyer, so one cannot, and need not, compare Yale or Wisconsin with Medgar Evers or Evergreen State. Of each we should demand excellence, but measured against different and relevant standards.

Judging Individual Performance

Just as a broader spectrum of students was gaining access to higher education, the measures of selection and evaluation were focusing down to those based on narrow measures of academic ability. The resulting contradiction between broader access and narrower standards of measurement led to the emphasis on academic sorting -- the use of grades and tests to select that percentage of students able to compete on those grounds for entrance to graduate or prestigious undergraduate programs.[30] In turn, the further result was to reinforce a narrow view of the process of education and to focus on the transfer of knowledge as organized into academic disciplines.[31] As higher education has become more egalitarian, grading has become less a measure of a student's educational progress and more a means of shunting aside those students who do not fit easily into the academic world.

Aptitude tests, originally intended to help standardize and simplify admissions procedures, were adapted to the screening process. Whereas during the 1920's and 1930's the yearly increase

in the number of such tests administered for college entrance was slight, after World War II their use began to jump -- from 25,000 in 1945 to half a million in 1960, and to almost 2 million by 1970.[32] Concurrently, the grade point average became the all-important measure -- not of learning but of opportunity for advancement along the academic ladder. Only in the last twenty years, with the flood of new students, has the concept of academic selectivity become firmly established. Not only did Harvard, Yale, Princeton and Stanford become "selective"; so did Michigan, Berkeley and North Carolina.[33]

But, for years, the idea that the accomplishment of the student and the effectiveness of the institution can be measured by narrow types of grades and tests has been under attack, and the intensity of that attack has been growing.[34] Grades and tests in their present forms do predict performance at the next level of education. They do in certain ways motivate the student. And because of the artificial restrictions built in by educators and employers, grades do influence who gets the economic, social and political rewards of our society.[35]

Unfortunately, however, grades are most often used to measure the ability to respond uncritically with the same information in the same form as it was received. Assembly-line education has made grading and testing less a measure of the student's development and more a rite of passage required for entrance to the next level of education. No other measures for evaluating the progress

of students are in widespread use.[36] For most students, contact with the faculty is minimal, averaging less than twenty minutes per quarter outside class.[37] The continuing focus on the current measures rewards the conforming plodder at the expense of creativity, depth and subtlety.[38] Beyond that, studies of businessmen, doctors, policemen, teachers, engineers, air traffic controllers, bank tellers, factory workers, dentists, and even scholars indicate, in the words of one researcher, that grades and tests "bear little or no relationship to any measures of adult accomplishment."[39] Thus grades are related to who gains the status of having received a college degree but they do not seem to predict performance beyond schooling.

Today the race is to the academically swift. But as society and post-secondary education become more egalitarian, the issue cannot be simply how the student compares with his peers. Rather, of increasing importance are the questions as to the student's potential, how far he has developed in terms of his potential, what he wants to do, and how the college can assist him.[40]

None of this is to say that the comparative measure of merit is not important. There are, by any standards, great differences in the abilities of individuals, and these should be recognized.[41] But human ability is multi-dimensional, while much present testing is one-dimensional and fails to take into account the fact that different students use differing abilities to learn and develop. Even worse, current testing practices often fail to measure those

very characteristics traditionally considered central in the process of a liberal education: the ability to think critically, to organize in order to accomplish a task, to tolerate ambiguity and differing points of view, to master the process of learning -- all those characteristics which insure the usefulness of the student's education in life beyond the academy. Attempts to measure the progress of the student in his intellectual and social development over time are almost non-existent.[42]

This not only leaves the student with no useful yardstick for self-guidance, but the institution, unable to guage the needs of its students, finds it difficult to change and adapt in order to improve its educational impact on the particular category of students it serves. Research studies, as well as the experience of a number of colleges willing to experiment, such as Ottawa University, Stirling College, or Eckert College, have shown that coursework and grading can be restructured to accelerate student development.[43] It should also be noted that these issues have become a matter of concern to many admissions officers at selective institutions and at some graduate schools, as well as to the national testing agencies which have been developing new forms of testing for differing dimensions of intellectual growth. But much more work needs to be done.[44]

Measures of individual merit are essential, but to be useful in measuring educational progress and to be equitable in the allocation of opportunities, they must be related to the stated

purposes of education. New means for measuring the student's intellectual growth must be developed.[45]

Who Gets In When Access is Limited?

As more and more individuals seek ever higher levels of education, what are the grounds for selecting some over others? In undergraduate education, the response to the demand for access has been to expand the number of places to accommodate almost everyone. There is still an important question as to who gets in to the most selective colleges and universities, but the admissions decisions of these institutions are not all-or-nothing matters to the student -- there are always other places to go for a bachelor's degree.

A more difficult situation arises in the case of specialized or graduate training. Expanding to create a place for everyone is not rational in terms of the resources needed or the potential career openings requiring such training. With more qualified applicants than places, selections must and should be made on the basis of merit. But merit of what kind?

We believe that traditional academic measures should be supplemented by standards which predict successful performance beyond schooling.[46] In some fields this has always been done. Although both intelligence and a broad cultural background are likely to be useful to a concert musician or an actor, it is not common to use grades or nationally-normed tests to select entrants to conservatories or actors' workshops. For a potential physician,

however, high school grades are essential for entrance to a selective undergraduate college -- where grades become even more essential for entrance to medical school.[47] Yet those grades predict little if anything of the student's interest in or qualifications for service to other people.

If medical schools or other graduate schools and their students were entirely privately supported, the issue might be of less direct concern. But in most graduate departments, the student's tuition pays only a fraction of the costs, and public support is significant. Often the student receives some form of public assistance toward his tuition and other costs as well. Surely the purpose of public support must be to assist in the selection and training of those practitioners in each field who will be most useful to society <u>after graduation</u>. It is, therefore, a matter of significant national interest to develop new means of selection, measurements of the results of education and ways of coupling them to post-graduate achievement.[48]

* * * *

The goals of American society for education beyond high school have changed. A broader range of citizens from diverse backgrounds with diverse skills seeks an education. A broader range of institutions now called post-secondary education seeks to serve them.

We believe that much of that broader range of institutions

should be recognized as a legitimate part of the education community. Rather than leading to a weakening or elimination of standards, the new egalitarian drive should lead to different and more useful standards. Whether a student has high intellectual skills is important, but whether the process of education is helping students of every level of skill further their intellectual development is even more so.

Federal policies with regard to accrediting, the collection of statistics, student aid and the sponsorship of educational research influence almost every aspect of the extent of the domain of post-secondary education and the nature of standards. These policies must now be readjusted to reflect the realities of the nation's commitment to an egalitarian era.

II. THE END OF GUARANTEED SOCIAL MOBILITY

Americans have long considered college as the gateway to the upper middle class. For those seeking upward social mobility for themselves or for their children, the American model is no longer the self-made man but the university graduate.[1]

Students who are the first generation in their families to go to college are especially focused on the diploma as an admission ticket to social and career territory not realistically accessible to their parents.[2] It is ironic, but inevitable, that just as college opportunities are finally within reach of so many new students, the colleges are losing their capacity for social and occupational placement. Because so many have been to college, a college education is a necessary but no longer sufficient condition for social mobility. Not having the degree may block opportunities, but having it will not ensure them.

Public Expectations of Status and Income

The effort to expand access coupled with a steady stream of rhetoric from the educational community and government has tended to reinforce widespread expectations that there is a direct relationship between the amount of education and the likelihood of upward mobility in status and income. It is no wonder that students and their parents readily make this connection, when institions of higher education put it forward in news releases, catalogues, and in one recent case, even on billboards.[3] College degrees, it has

been pointed out repeatedly, are worth a great deal to the student over his lifetime.

Federal pronouncements also support the connection. A Veterans Administration circular, encouraging veterans' use of the G.I. Bill, recently claimed that "college graduates have an average lifetime income that is $237,000 more than persons with only a high school diploma -- $608,000 compared to $371,000."[4] Advocates of federal aid policies have assumed, based on a study of that G.I. Bill, that a modest investment in student aid yields substantial returns in higher taxes.

Obviously there is some relationship between a college degree and relatively high status and income. One expects social status to be related to higher education partly because of the prestige itself of being a college graduate, partly because degrees are required for entry to certain careers and partly because the skills that can be acquired are generally useful in life.[5] What limited evidence there is indicates that there is a relationship, but how direct, how universal and how causal it is have been badly exaggerated.[6] Those who attend college are more likely to be upwardly mobile compared to their parents than those who do not attend college, are more likely to earn higher incomes, are more likely to vote, less likely to be on welfare, and less likely to have mental health problems.[7] But what is cause and what is effect?

An important part of these results, perhaps most, occurs not

because of the effects of college, but because a great many bright, aggressive, well-balanced and socially interested people perceive the value of going to college in this society and act upon that perception.

But part of the results is ambiguous. There are clearly more high earners who went to college and more low earners who have never gone to college, but in between are about 60% of the wage earners for whom college and non-college incomes are indistinguishable. And some part of these results comes from credentialism -- from the arbitrary use of degrees to screen job candidates.

But perhaps the most important question is whether the traditional assumptions about college as a route to higher social status and income can remain valid as more and more Americans enter college.

Oversupply and Underemployment

Within the last few years, it has become apparent that in many occupations traditionally reserved for college graduates, the numbers completing their training are outrunning the normal opportunities for employment. An early problem was the relationship between supply and demand for Ph.D.'s in physics, later in the supply of all Ph.D.'s relative to new openings for faculty members.[9] Then came the oversupply of engineers, and still more recently overcrowding in such fields as elementary and secondary teaching and even law.[10] Increasingly, the question arises whether the job market can provide sufficiently challenging --

and high-paying --* positions for all these well-trained people.

An oversupply of college graduates has rarely before been a problem; rather, it has been common to hear just the opposite concern. One report published in the mid-60's raised the question "whether technological progress may induce a demand for very skilled and highly-educated people in numbers our society cannot yet provide, while at the same time leaving stranded many of the unskilled and poorly-educated with no future opportunities for employment."[11]

There is strong evidence that the current problems plaguing job-seeking graduates are <u>not</u> temporary phenomena, but will continue to be a fact of life throughout the 1970's. In the aggregate, technology creates more jobs than it destroys, but the jobs created are not always more skilled than those replaced.[12] For the last few years, this problem has been compounded by an economic recession and slowdowns in research and development funds, especially in aerospace and defense, lessening the demand for college-trained employees just as that supply was reaching new peaks.[13] But with the rapid growth in college-going, the trained manpower supply has long since met the demand in almost all fields.

The actual requirements of the economy for trained manpower are extraordinarily difficult to measure.[14] The advancing sophistication of society and its requirements for new levels of education to perform tasks effectively have become hard to distinguish from the arbitrary redefinition of jobs to require higher levels

of education because of the availability of college-trained applicants. For example, it is increasingly common now for policemen to have had college training, and for some police and correctional work at least two years of college is now a requirement. Is this because the role of the policeman is becoming more complex, or is it because there are enough applicants with such training that the employer can do a preliminary sorting by establishing such requirements?[15] No doubt there is an element of both as well as a new perception on society's part of the need for self-esteem in such roles.

Two clues may help measure the extent of the surplus. First, in the simplest terms, at the current levels of college attendance, each year the economy must absorb new entrants to the job market in approximately twice the proportion as currently exist in the total work force[16] and in even larger proportion new entrants who have attended college but are not graduates. Even if one assumes that entry level jobs require a somewhat higher proportion of college educated people than the whole of the work force, an assumption for which we have no evidence, this is an extraordinary jump.

Second, compared to other sophisticated societies in the developed world, such as West Germany, Sweden or Japan, the American economy already absorbs at least twice the percentage of college graduates as the next nation, and again an even larger share of non-graduate college attendees. In other words, we

currently absorb twice the percentage of college graduates into the work force as our nearest economic competitor, a cumulative total for the American work force of about 14%, and at current graduation rates, the percentage must soon double again, to about 25%.[17]

Many assume the trend toward more education simply matches a shift in the nature of the work force as the U.S. moves into a post-industrial knowledge economy. The following table shows the ten and twenty-year shifts in the percent of the total work force by occupational group.[18]

TABLE 1: Percent Distribution of Employment by Major Occupational Groups

	1950[a]	1960[b]	1970[b]
White collar	37.5	43.4	48.3
Professional and technical	7.5	11.4	14.2
Managers, officials, proprietors	10.8	10.7	10.5
Clerical	12.8	14.8	17.4
Sales	6.4	6.4	6.2
Blue collar	39.1	36.6	35.3
Craftsmen, foremen	12.9	13.0	12.9
Operatives	20.3	18.2	17.7
Nonfarm labor	5.9	5.4	4.7
Service	11.0	12.2	12.4
Private household	3.2	3.0	2.0
Other services	7.8	9.2	10.4
Farm	12.5	7.9	4.0
Farmers and managers	7.4	4.2	2.2
Farm laborers and foremen	5.1	3.3	1.7

a Persons 14 years of age and over
b Persons 16 years of age and over

Source: Manpower Report to the President, 1971, and Statistical Supplement to the Manpower Report of the President, 1965.

With regard to the two main "college-type" job categories, "professional and technical" has grown by 6.7% from 1950 to 1970, while "managers, officials and proprietors" has declined by 0.2%. But during these same twenty years, college attendance for the age

group reaching 18 to 22 has increased from less than 20% to over 50%.[19] In the largest professional category, teaching, for which traditionally more than a third of the bachelor's candidates prepares, the number of new openings is expected to decline over the rest of the decade. Yet this year there were 243,000 beginning teachers competing for 132,000 positions. The less fortunate 111,000 do not simply disappear, but in turn enter the competition for other "college-type" jobs. The result of all this has been a steady increase in the numbers of college graduates and college attendees showing up in other categories, particularly in "clerical," "sales," and "other services."[20]

In the short run, balancing supply and demand for well-trained manpower is even more difficult than even these figures imply. The above understates the growth in post-secondary education because it does not reflect the increase in older students returning to college or the growth in enrollment in post-secondary education outside the colleges and universities.[21] And it fails to account for the changing perception of the role of women.

Twenty years ago, most women graduating from college expected to become full-time wives and mothers. Those that entered the labor force were required to settle for jobs that normally demanded less than a college education. The case of the Phi Beta Kappa from Radcliffe or Vassar who finally managed to land a secretarial post at a New York publishing house has become a part of the folklore. Only in teaching and nursing did women have ready access to

professional jobs.

1971 was a watershed year. For the first time, more than half the women between 18 and 64 (and over 40% of the married women) in this country were in the paid labor force. And, increasingly, women are demanding full equality, backed by the legal powers of the Federal government and encouraged by such things as an advertising program of the National Organization of Women. Since women currently receive 43% of the bachelor's degrees granted in this country,[23] the trend toward their entering the work force with new and higher expectations, just as their traditional professional occupation (teaching) has begun to contract, increases sharply the number competing for the better jobs.

By the end of the 1970's, the problem may be less severe, as every year a smaller number of Americans will turn eighteen.[24] By that time also, both the structure of the work force and public expectations may well have undergone considerable change.[25] And none of this means that large numbers of unemployed college graduates will be walking the streets. There will be more "good" jobs than ever before and the most promising graduates will do better than ever.[26]

But, as the supply of college graduates expands, mere possession of a degree, particularly in the liberal arts and humanities, will not be sufficient to land what has been considered an appropriate job. Assuming the same steady but modest rate of

growth of knowledge-demanding jobs as has been true through the last two decades, we believe that, in terms of traditional expectations, there will be a general underemployment of many college graduates.

College-Going and Downward Mobility

The increase in college-going leads inevitably to a dilemma. While American society has been remarkably adept at expanding its middle class, mobility is naturally perceived in relationship to someone else. If many are moving up then some must move down -- at least relatively. Clearly not everyone can become a member of the upper middle class. There are, in fact, two important trends which appear to run counter to the traditional perception of college attendance as leading to increased social status and its assumed companions, a "college-type" job and increased income.

For some children of middle or upper class families, college-going fails to keep them from downward social mobility. Recently much press attention has been focused on a few individuals in this category -- the taxi driver from Harvard or the Berkeley graduate living in a woodsy commune.[27] While they may represent the attention-getting fringe, there does seem to be a significant and growing trend toward downward mobility. Though middle and upper class children usually have an advantage in the quality of school they attend and often in the intellectual training in the home, not all are academically motivated or skilled. A significant percentage become college dropouts.[28] In addition, as more of the

population enters college, the competition for the "good" jobs increases, leading to an increased importance for such additional attributes as motivation, personality and experience. Some children of the middle or upper class who have attended college are uninterested in conventional careers, others are either unwilling or unable to face the competition.[29]

With the decline of proprietorship and the emphasis on training and credentials, it is more difficult to pass on status. Illustrative of this phenomenon is a case recently described to the Task Force of a couple, both of whom are well-known scholars.[30] Their combined income (added to, in this case, some inherited wealth) as well as their positions and reputations place them clearly in the upper class. Both children are college dropouts, one working in a lumber yard, the other a waitress. Their parents can, with the current inheritance taxes, pass on money -- but not position. They can insure access to college[31] but not the fruits of college. The same is true for that traditional American, the corner druggist, nowadays a manager of a drugstore chain, who cannot pass on his position, his degree in pharmacy or his license Increasingly, the crucial question is whether the parents pass on the motivation to succeed <u>at something</u>.

The second trend is the new ability for many to bypass college to reach <u>middle income</u> in jobs that do not require college training and which have not historically been viewed as <u>middle class</u>. Many teamsters, longshoremen and construction workers earn between

$15,000 and $20,000 -- incomes twice the median wage-earner's income.[32]

College, therefore, though it does provide an edge, is not a certain route to riches, nor is it the only route. We believe that this will help create a more meritocratic society, but one based on different standards than are currently being used by the colleges.

Education and the Social Mobility of Minority Groups

A special case of the importance of education and social mobility is that of minorities, who come to higher education in larger numbers just as the problem of oversupply is becoming acute. Less than a decade has passed since the higher education community began an intense effort to open access for minorities to the whole range of colleges and universities. In that time, the nature of the problem has shifted from discrimination in admissions to a more complex set of issues.

From what little evidence is available, the relationship between higher education and mobility for minorities seems more direct than for white students (perhaps as a result, minority students place a higher value on gaining a post-secondary education than do their white counterparts).[33] To succeed without such credentials is difficult for whites, but almost impossible for minorities, so that the trend for credentials to be necessary but not sufficient is even more true for minority applicants. As the Supreme Court noted in the Griggs vs. Duke Power Case, arbitrary use of credentials for screening applicants often

works against minority applicants.[34]

Self-confidence and esteem are critical problems, particularly in terms of perception of career opportunities, and these seem to be altered by participation in post-secondary education. Whereas the ability of college degrees to confer the status of middle class is eroding as degrees proliferate, they still have a more powerful ability to certify middle-class membership for minorities than for whites.

In terms of minority access to higher education, the progress so far is undeniable. The Report on Higher Education, using the figures for blacks as an indicator of minority access, noted that the number of blacks as a percentage of all students had begun to rise in 1967.[35] Since the completion of that report, the progress with regard to access has been even more marked.[36] In the year 1970-71, for example, total enrollment increased by about 4%, but black enrollment increased by 17%. In measuring this progress, it is important to note that the percent of black students was declining in the period immediately before 1967.[37]

At the time of the Report the data on other minorities, Chicanos, Puerto Ricans and native Americans, was so skimpy as to make evaluation of their enrollments difficult. Since that time, more evidence has become available and it is clear that the number of students within these groups, as percentages of all students, is also rising steadily. In 1970-71, Spanish-speaking enrollment rose 19%.[38]

Although the data is less adequate for graduate schools, in the last few years the share of minority graduate students has also begun to rise. In 1970-71, black graduate enrollment rose 38% and Spanish-speaking rose 31%. However, the share of minority students as a percentage of all graduate students is still far below, something less than half, that at the undergraduate level, and still far below the minority share of the age cohort.[39]

But even more important, as the following table shows, the new Census data indicate that more and more college-educated young people from minority communities are moving steadily into jobs (and income ranges) consistent with a pattern of upward mobility.[40]

TABLE 2: Non-White Career Participation: A Measure of Change Since 1960

		Non-White	White
Professional and technical workers (percent of each work force)	1960	4.8	12.1
	1972	9.5	14.6
Percent of each work force unemployed	1960	10.2	4.9
	1972	10.0	5.0
Percent of families with income of $10,000 or more (adjusted for price changes in 1972 constant dollars)	1960	13.3	35.9
	1972	33.7	59.2
Median Income of Families	1960	$4,564	$ 8,267
	1972	$7,106	$11,549

Source: New York Times, August 26, 1973.

With this progress, many educators see the present needs of minority education primarily in financial terms. While resources are essential, it is important to take into account the growing split between those minority students who are "making it" in post-secondary education and in later careers, and those who are not.[41] For this latter group, the basic instincts of the traditional campus are wrong, and they are even less likely to gain from access than are the white students who aren't "making it" in higher education. In this sense, the problems of minority students are less discrimination in admission or even adequate financial support and are closer to the problems of all students. The question is increasingly the same: How can effective opportunities be created for those students not well-served by the current institutions?

However, there remain a number of problems peculiar to minorities. Among those minority students not "making it," there are many who lack motivation and self-esteem and more whose world is a subculture alienated from the mainstream of society (as described in several recent studies)[42] so that their lives are outside any foreseeable role in the post-secondary education community. This is particularly the case among native Americans as well as for some urban blacks, Chicanos and Puerto Ricans.

Minorities are still disproportionately entering the least selective institutions. As the following table shows, bright male minority students are more than twice as likely to enter a

community college and less than two thirds as likely to enter a university as their white counterparts.

TABLE 3: Distribution of Male Students Among Types of Institutions, by High School Grade Averages, 1970.

Average high school grade	Percent enrolled in two-year colleges		Percent enrolled in four-year colleges				Percent enrolled in universities	
			Predominantly white		Predominantly black			
	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites
A or A+	10%	4%	12%	40%	46%	.09%	33%	56%
B+	24	12	25	43	24	.13	27	44
B	16	24	19	40	44	.18	19	36
C+	28	44	18	33	41	.28	14	23
C	42	59	16	26	34	.29	8	16
D	54	66	21	21	21	.47	5	14

Note: Columns may not add up to 100 percent because of rounding.

Source: Toward Equal Opportunity for Higher Education, College Entrance Examination Board, Princeton, New Jersey, 1973, p.44.

Just as minority students have arrived at the graduate school doors, the pressure for admission from white males and newly-liberated women searching for a suitable credential is mounting. Consequently, new resistance to minority progress in graduate school admissions is appearing.[43]

Programs of support for minority students have been harder to create at the graduate level than the undergraduate. Not only are almost all federal (and many state) graduate fellowship programs declining, but student aid at the graduate level is also more complicated. Because there is an assumed rough correlation between the terms "minority" and "low-income" at the undergraduate level there is public acceptance for a significant proportion of student aid going to minority students. And the general programs of aid

to low-income students reach most minority students.[44] That correlation is far less clear at the graduate level. There are no general programs of aid specifically targeted for low-income graduate students. On what grounds can student aid be targeted for minority students? What role should family income play when determining financial need for graduate students?[45]

A significant share of all minority students attends the predominantly black colleges and the few Spanish-speaking and native American ethnic colleges, yet the very success of opening access to the predominantly white colleges threatens the viability of these institutions. After years of important service on starvation budgets, their influence, now that minority education is finally front and center, has diminished as many of the best minority students and brightest young faculty are attracted to predominantly white institutions.[46]

But increasingly, the critical problem for minority students is merging with the critical problem of white students -- encouraging the development of institutions of post-secondary education which are effective in meeting the needs of diverse students, particularly those who do not learn well in the conventional academic format.

Resources are needed. At the graduate level, we believe a program of national fellowships, selected as described in our position paper on graduate education, will help, among others, talented minority students.[47] With regard to all black and

ethnic colleges, public and private, there is an obvious current need for federal support. Yet it is not logical for the Federal government to subsidize these institutions permanently. Present funding should be designed so as to be an incentive to help such institutions achieve a viable and competitive role in higher education without special federal assistance. Too often general institutional aid simply becomes a subsidy for continued operation, postponing the interest in institutional reform. Their future should depend on the enhancement of their intrinsic values.

There are a few disturbing signs of a flagging of the commitment to minority opportunity within post-secondary education.[48] Much of the intensity of this commitment in the late 1960's came from a national sense of guilt and fear. Today, both of those emotions are much diminished. We believe that it is important for this country to recommit itself to educational opportunities for minorities based neither on fear nor on guilt, but on a determined interest in social equity.[49]

Strategies in an Era of Underemployment

In light of the oversupply, or underemployment, of college graduates, major shifts in educational policies have been put forward, including:

--Deliberate cutbacks in college attendance. We disagree. A college education can make a contribution both to the individual and society beyond its value as a preparation for a specific career. Broader access, so long sought, is changing the aspirations and opportunities of the less advantaged, creating a more open and mobile society.
We believe that where specialized education is mandatory and access necessarily limited, standards for admission should

more clearly represent societal needs. But in general, a more equitable -- and effective -- approach will be to provide access to education and let the competition for the best career opportunities occur on the job, rather than at the admissions door.

--Shifting primary emphasis to vocational and career training. Such training should be accorded greater legitimacy, but it should not be seen as a substitute for liberal arts, which has its own broader values. Students should be able to take either or both, in whatever order meets their needs.

--Detailed and comprehensive state or federal manpower planning. Considering the notable lack of success of governmental agencies to date -- planning, for example, for a teacher shortage while the problem of oversupply was upon us[50] -- such an approach would be both inhibiting to freedom and openness and most likely unsuccessful.

Education is not rigidly tracked here as it is in Europe, so that graduates are able to move to less-crowded careers. There is no tradition in this country, as in India or the Philippines, that most jobs are beneath the dignity of the educated, so that there is not an accumulation of frustrated and unemployed college-educated.[51] Rather, Americans show great flexibility in adapting to changing employment opportunities.

This is not to say that no broad planning should be attempted. The Federal government can help by developing and disseminating more reliable data on the supply and demand for highly-educated manpower. In areas of obvious shortage, federal incentives can help encourage expansion. For example, this country trains approximately 9,000 physicians per year, but imports another 10,000 from abroad. Adding insult to injury, 600 Americans annually go abroad to study at foreign medical schools.[52] Yet, in this field, the Federal government proposed elimination of support for students

only one year after establishing strong federal incentives for expansion of health education enrollment.[53]

Under any foreseeable conditions, there will be substantial underemployment of college graduates in relation to the traditional view of "college-type" jobs. A more rational relationship between education and careers can come about if realistic opportunities exist for students to return to formal education on a recurrent basis throughout life, as noted in the next chapter. This allows the beginning of a career without the feeling of losing the only opportunity to insure social mobility through education, allows a beginning career choice without the fear of making an irrevocable life commitment, and allows weighing the value of varying types of education. There will always be competition for the "best" career opportunities, but wherever possible it should be based on performance on the job rather than in the classroom.

We believe that colleges and universities must turn toward a more honest presentation of their role and value in society. In the past, the higher education community has argued eloquently for the broad value to society and the student of a sound general education. But behind that rhetorical front there has been a quiet argument for a second value -- that of a college credential as a guarantee of a good job, high income and social status. In asking the support of society, we believe that colleges must stand less on their value as certifying agencies, and more on their value as educating agencies.

The fundamental values of a general education have been put forward as useful preparation for a productive life, for social responsibility and for personal fulfillment. But if these values are to be the yardstick, then it is essential to insure that academic programs do indeed provide an education that is effective for these purposes. A re-examination and renewal of all of post-secondary education and particularly of liberal education may therefore be the most important agenda item of the 1970's.

III. NEW REQUIREMENTS FOR EFFECTIVE EDUCATION

Now that millions are entering post-secondary education with a wide range of skills and diverse goals, it can no longer be assumed that all, or even most, students will be qualified for or motivated by conventional academic instruction, nor that most will be well-served by the traditional assumptions about the appropriate time and place for higher education.

--For any serious learning to take place, the student must be motivated to take advantage of what college can provide, yet there are few perceived alternatives to college and few if any barriers to the unmotivated student.

--Access, to be useful, must be to an educational opportunity appropriate for the student, and this requires a diversity of institutions beyond that available today.

--The need and readiness for formal learning will occur at differing and multiple times in the lives of individuals, requiring recurrent educational opportunities.

The Need for Motivated Learning

In earlier educational eras the motivation of the student was not an issue of public policy. When higher education served an aristocracy, college attendance was a class-conferred privilege, which, if not taken seriously, was of no apparent cost to society. With the advent of meritocratic rules, students who were able at the academic arts earned the right to attend, and administrators and faculty assumed that the student would seek to make good use of his hard-won right. Attrition occurred and not all students were serious, but this was still seen as the student's loss and not

society's. College was for the elite and those who wasted an opportunity available only to the select few could be dismissed as foolish.[1]

Today, as a result of the long and successful effort to make access easy, the question of a student's motivation cannot be so readily ignored. As the barriers of income and academic selectivity have fallen and as the use of college credentials as job prerequisites has proliferated, a majority of today's youth sees college attendance as obligatory. Often, serious motivation to learn in college is lacking.[2]

As a rough generalization, there are two groups for whom motivation is a problem. One consists of students generally in the lower third of high school graduates. Pressured by parents, counselors, peers and the need for credentials, they enter college. These "new learners" are not without ability and motivation, but often their abilities are clearly not academic, nor are they necessarily motivated to pursue a style of learning which many of them found frustrating in high school.[3] They may be strongly motivated to learn applied skills, or to learn from experience rather than from abstractions. Certainly they are usually motivated by a desire for credentials.[4] They may be willing to commit themselves if they find a college experience which builds on their talents. Institutions organized to do this, such as the College for Human Services or Alabama A & M, have demonstrated that attrition among non-academic learners can be sharply reduced.[5] Or, as the

experience of Vietnam veterans and older students indicates, if entrance to college occurs a few years later in life, they are more likely to be motivated to learn even from traditional academic programs.[6]

The second group consists of those academically talented students who drift purposelessly through higher education. Despite their lack of interest, many attend college because they have been "trained for the contest since birth"[7] or because they fail to perceive an alternative. The very lack of barriers to entrance tends to diminish the student's sense of purpose. Some drift in and out of college repeatedly, never engaging themselves either in the process of study on the campus nor in any serious career or volunteer enterprise off campus, oblivious to the enormous costs to themselves and society entailed by spending unmotivated time in college.[8]

Conscious student choice is essential to motivation. By this we do not mean that students need to design their own programs of education. Rather, we mean that a student needs to be able to make a reasoned choice among clearly different options to pursue a particular style of learning at a particular time and place. For some, such a conscious choice will result in the student leaving college until he is clear as to his interests, for others it will mean the opportunity to choose an educational program that builds on the student's interests and talents.

Restructuring admissions or student aid programs to encourage motivated learning is not simple, since motivation is not readily

measured. Self-confidence and a sense of purpose are central, yet these are often hampered by any barriers to access which seem arbitrary. For many students, broader personal and work experience before, between, or even during the college years is essential for more motivated learning.[9]

It is ironic that the educational community has accepted so fully the value of the period away from schooling that occurred in the case of returning G.I.'s. After initial hostility to the concept of the G.I. Bill when it was first proposed, educators have generally assumed that considerable benefits to both students and the educational community have resulted. But they have never acted upon that example or attempted to broaden the use of the concept -- this despite a number of studies which show that on the whole, those who left the educational lockstep and returned after their military service usually obtained higher grades, enjoyed the college experience more, were appreciated more by the faculty, and were more motivated, if for no other reason than because they had made a conscious choice to enter or re-enter college.[10] Similar results have been found in the studies of returning Peace Corps veterans, women returning to Sarah Lawrence after their child-bearing years, and older students entering the University of Texas.[11] The campus has much to gain from age diversity, for older students bring the benefits of their own experience to many others through the peer influences in college.[12] It would seem reasonable, therefore, to extend the concept of periods away from schooling more widely in

American post-secondary education.

Federal programs can encourage and legitimize such external experience by expanding student aid based on work-study and cooperative approaches, by expanding federal volunteer programs that extend the alternatives open to the young, by revising federal student aid to make it more available to older students, and by adapting the concept so successful in the G.I. Bill of providing educational benefits for those who have served their country and extending it to include community service, not just military service.[13]

The Need for Diversity

Student motivation is in part a function of when the student is in college, but is also a function of what type of college the student attends. To this end, a greater diversity is essential to accommodate the new and far broader range of abilities and interests of entering students.

The response on the part of many educators to such a proposition is, "But we are diverse! We have public and private institutions. We have two-year colleges, four-year colleges and graduate schools. We have liberal arts, vocational, and career education and we have large and small institutions."

Though true, this misses the point, for the real issue is whether the nature and extent of diversity matches the needs of students seeking an education. What is the range of choice from the vantage point of those who want to develop differing skills,

who want to capitalize on differing abilities or who learn in different ways? In these respects, the range of diversity in American education is too limited.[14] We believe that to increase the effectiveness of teaching and learning, there must be incentives for each institution to sharpen the focus of its mission and to rethink its approach to teaching and learning.

Nearly all of today's colleges and universities see it as their mission to impart knowledge organized primarily in terms of academic disciplines: of history and political science, chemistry and biology, sociology and psychology. Most feel no learning is legitimate that fails to fit into a standard academic box. To be diverse (or in the accepted term -- comprehensive) within an institution is to cover a wide range of such disciplines. Yet there is no logical reason to assume that the mission of education is to compel students into common patterns of academic achievement differing only in level of accomplishment. For some students, the comprehensive, discipline-based college or university is appropriate; most, however, learn more effectively in institutions of different but focused missions.[15]

The classroom lecture has been the dominant educational method, just as the academic disciplines have been the dominant approach to organization. Many colleges are now exploring alternatives to the classroom lecture format,[16] but across the landscape of American higher education, learning is still largely a spectator sport. The fact that American higher education has institutionalized a single

system involving academic years, in which knowledge is fragmented into courses, attended at fixed times and in which teachers and students play prescribed and routinized roles, helps explain the lack of diversity. The four-year curriculum almost universally copied from an arbitrary and ancient decision at Harvard stays firmly fixed despite widespread recognition that many students need a longer period of college and others a much shorter time.[17]

Fortunately, there is a new interest in diversity. A variety of new post-secondary institutions has been organized -- open universities, single-purpose institutions, experimental sub-colleges, ethnic colleges, urban learning centers, cooperative programs, off-campus internships, and many others. But the number of students in such programs remains small compared to total enrollments in post-secondary education.

Variations in the sequences, times, pace and intensities of learning can come about through changes in governance, decentralization, and moves to new physical settings. Often such changes are the means by which teachers and students can be encouraged to reconsider why they are doing what they are doing. Other educating agencies in American society -- the Armed Services, language schools and schools of performing arts, research corporations, businesses, clinical hospitals, planning organizations, and a host of other agencies -- provide models of the enormous variety of ways individuals can be organized to teach and to learn.[18]

There are several strategies that we believe are workable in

encouraging diversity. First, it is desirable to encourage the development of new institutions. This is not because more institutions are needed but because one important avenue to imaginative and diverse institutions is entrepreneurial experimentation. A harsh but necessary concomitant is that there must also be room for the demise of ineffective institutions as well, both public and private.

Second, society should recognize and legitimize the serious educational activities of peripheral institutions, including those of the Armed Services, proprietary institutions, and industry. These segments of post-secondary education probably meet the needs of adults in a more comprehensive way than any other.

Third, it is desirable to preserve the conditions under which a healthy and effective private sector of post-secondary education can continue. The issue is not whether private higher education is more effective or more diverse than public. The combination of public and private is more effective and more diverse than public alone. More important than ever is the point that the relative independence of some institutions helps insure the vitality and freedom of all.

We believe that the national interest can best be served by a varied system that includes institutions offering programs of differing length and learning style, in differing social settings, public and private, non-profit and proprietary, all competing under conditions which encourage each institution to pay healthy attention to

its own effectiveness.

In moving in these directions, educational standards can and should be raised, not lowered. Commitment to innovation and diversity should not be an excuse for a lack of structure or the failure to demand performance of the student.

Recurrent Education

Until very recently, the public has tended to see post-secondary education as a launching pad. The nature and length of the educational experience determines the career and life orbit the student enters -- an orbit in which we expect him to remain throughout his life. There is now a growing awareness in American society that formal education is not something that must be completed in one block prior to any career experience.

There are a number of reasons for the gradual erosion of this concept and an interest in recurrent education -- a term first used in Europe.[19] One of the most frequently put forward is the problem of educational obsolescence. Not only must a physician or engineer periodically take the time to upgrade his technical knowledge, but there is today a general perception that the work force must be more flexible. As jobs change at all levels, education can be useful in minimizing the limitations of manpower planning and the inflexibility of the labor market.[20]

There are three other reasons that are perhaps more significant. First is the desirability of providing many people an opportunity for new careers. Some will find it useful to return

for more education to help them move upward along a career ladder. This is one of the main concerns in Europe -- providing an equitable opportunity for older students who did not have the opportunity for college or university work when they turned eighteen. Others, and probably a growing number, want the opportunity for lateral movement as, for example, the businessman who in middle age wishes to tackle some new challenge and wishes to begin studying for a degree in education.

The second reason is that a recurrent pattern matches most students better than the traditional pattern. Most, as noted above, are trapped too long in the academic lockstep, isolated from careers, and unsure of their own interests.

Third, for many already well into careers, a recurrent educational opportunity allows a period of personal reorganization. College is a period of suspension, both in terms of personal development and career -- a period when one can think of goals without the social pressure to be "doing something." Our society seems to be moving toward a time when such periods of suspension and re-examination will be appropriate on more than one occasion. For such recurrent students, a new period of development and reaffirmation can do much to keep alive a sense of excitement in their lives. The benefits of the reaffirmation of purpose and the return to study go beyond those accrued by the student himself. A recent study has indicated that children of parents involved in recurrent education patterns also benefit.[21]

Change is necessary to create more open and available recurrent education. Some changes on the job are necessary as well. There is a need for career ladders, where one can move one rung at a time. Can, for example, a talented and motivated computer programmer become a computer engineer and ultimately a computer scientist? Can a nurse become a doctor?[22]

There already exist a number of traditional avenues by which students past the normal college age may gain further education. They include:

--University extension programs.

--High school adult education programs.

--University-level correspondence schools (as in the oldest and best-known at Oklahoma University).

--Television colleges (as at the Chicago Community College of the Air, the State University of Nebraska, and Coast College or Cañada College in California).

--A variety of programs run by volunteer organizations, such as the YMCA.

--Internal training programs within industry.

And, of course, one should not forget the growing number of students beyond the normal college age who enroll at traditional campuses.

But despite the variety, there are problems of legitimacy, standards and effectiveness. Within the academic world these programs tend to be treated as second-class. More often than not they are unable to offer degrees. Frequently, extension courses are not accepted for credit for an on-campus degree even by their parent organization. Legislatures provide less funding per student

than for traditional, full-time, daytime programs. Many student aid programs either do not allow enrollment in such programs or have serious restrictions. Accrediting regulations often hamper acceptance. The implication is that what is learned in a 9 a.m. class by a full-time student is more significant than what is learned in an 8 p.m. class by a part-time student.[23]

In many such programs, the physical setting of the learning process is important. Many students beyond the normal college age find the campus uncongenial, designed and run only for young people. Frequently, because recurrent programs are often simply reduced versions of the conventional academic program on campus, a sense of participation is missing and there is lack of peer interaction. Only recently, as the Open Universities or the University Without Walls around the country have been developed, has there been a serious attempt to create new peer interaction forms for off-campus students.[24] One useful aspect of these developments has been the tendency to restore the student rather than the curriculum to the center of the learning process.

Recurrent education also calls for a new form of what we currently call counseling -- making available information by which students can make decisions. Recurrent education implies that students will be better equipped to decide among their educational options yet many will have less access to the conventional sources of information. Obviously the high school counselor will be neither available nor appropriate for this group. College counseling offices

usually have information only on that one institution's own programs. It is likely, therefore, that new vehicles must be found to make information more readily available.[25]

Besides the availability of information there are other difficult issues. The most motivated students (who are often already the best educated) want to go back to post-secondary education several times. On what basis should federal support be available? Should it be on the basis of a certain number of months of eligibility (such as the G.I. Bill provides)? Or if it is to be available on the basis of merit, will it favor those most in need of recurrent opportunities?

What distinctions should be made between going back in order to study for a new career and going back to study only for one's own enjoyment? Should public resources allow anyone to study anything, or just those subjects that lend themselves to more specific tasks? Is there an upper age limit past which society has no interest or obligation to provide support? Should student aid take into account the greater needs of a student who at a later point in his life already has developed family responsibilities and has become accustomed to a higher level of income?

For a number of years, both the French and Germans have had established programs of support for recurrent education. In both cases, there are government programs of employee benefits that result in something like a faculty sabbatical.[26] Similar plans have been suggested to support recurrent education patterns in this

country (the Federal government already provides a program for certain of its employees as do a few companies). Some proposals that have been suggested for funding recurrent students include the use of employees' benefits, variations of the Social Security program, a special version of unemployment insurance, or even government-insured mortgages on homes.[27]

There are a host of questions with regard to the federal interest in support of students interested in recurrent patterns of education which require detailed research and careful analysis.

* * * *

We believe the Federal government can do much to encourage motivated learning, recurrent education and diverse institutions by expanding support of work-study and cooperative education, by supporting and legitimizing alternatives to schooling (particularly alternatives involving public service), by revising student aid guidelines to accommodate a broader student age range, by beginning serious study of methods for supporting students returning later in life, by learning to deal with a wider range of post-secondary institutions and by encouraging more effective competition among the institutions of post-secondary education.

But in encouraging these concepts, federal programs must contend with powerful new political realities in the educational community -- a new inertia within colleges and universities that accompanies the end of a long period of growth, entanglement in

the restrictions of professionalism, and a revolution in the organization of educational decision-making.

IV. NEW POLITICAL REALITIES

For effective federal action, a range of new political realities must be taken into account.

The political landscape of American higher education is changing dramatically. With the end of two and a half decades of dynamic growth, new rigidities which were submerged or inhibited by growth are appearing in the body politic of many institutions. At the same time, an organizational revolution is rapidly shifting key educational decision-making from the college campuses to the headquarters of large multi-campus systems, the coordinating agencies and superboards of state government, faculty unions and the state and federal courts. Professional groups of various kinds, acting through state governments and in national alliances, continue to develop new rules of accreditation, certification and licensure affecting the freedom of movement of individuals and institutions.

The End of Dynamic Growth

Most higher education institutions are now organizationally middle-aged. In the last twenty-five years of unparalleled growth, the average campus size has doubled. Huge campuses have developed. Approximately a third of all students in higher education now attends campuses with enrollments of more than 20,000.[1]

At increasing numbers of campuses, 70% or more of the faculty is tenured, and the slowdown of enrollment increases makes it more and more difficult to introduce new blood. A decade ago, the average age of faculties was dropping. Now, with fewer and fewer openings, it is rising and almost 65% are 36 or older.[2]

The rigidities of middle age are exacerbated by the new demographic and economic prospects confronting higher education. Large yearly increases in enrollment are now a thing of the past. 1973 fall enrollment was up only 2%, compared to an average 8% yearly increase in the 1960's.[3] Large and automatic funding increases are much less likely. Federal funding, for example, increased only 42% over the last five years, compared with 182% in the five years preceding these.[4] Further expansion of higher education will be restrained at best.

All this means that change in higher education will have to take place under very different conditions than those which existed in the 1960's. Not all the new forces favor the status quo. To some extent, the perils and pressures facing higher education have brought a sense of urgency into the competition for students and resources and have created positive concern for the effectiveness of educational programs. As long as there were always greater numbers of students clamoring for admission and easy sources of new funding available, there was little perception of and patience with the need for the wrenching process of

analysis and self-improvement. But change must now come about not simply as an additive process, but through the more difficult process of re-allocating existing resources from old programs to new ideas.

Since opportunities for recruitment of new faculty will be limited, the means must be developed to create new interests and new skills among existing faculty. Reform and change through institutional self-renewal should be the order of the day.

The Revolution in Decision-Making

Most of the public, and many on campus, still perceive higher education as consisting of a number of colleges and universities, some public, some private, each independent of the others and each physically embodied on a defined campus. The college or university president is seen as the significant administrative officer, acting in his role as the titular head of the faculty and responsible with his staff for not only such academic concerns as admissions policies, but such financial concerns as obtaining the necessary resources from the alumni or the legislature. For better or worse, this concept is almost as outdated as thinking of a single school in a large urban elementary and secondary system, such as that of New York or Detroit, as the center of educational policy with the principal as the all-powerful administrator.

One critical trend, dating back only to 1950, is the decline of the private sector in higher education. For the first fifty years of this century, enrollment was evenly split -- half public and half private. Both sectors grew slowly and at the same rate. But with the huge growth rates of the 1950's and 1960's, private resources were simply not adequate to continue comparable growth rates. From 1950-1967, both public and private enrollments were growing, as Figure 1 shows, but the public sector was growing much

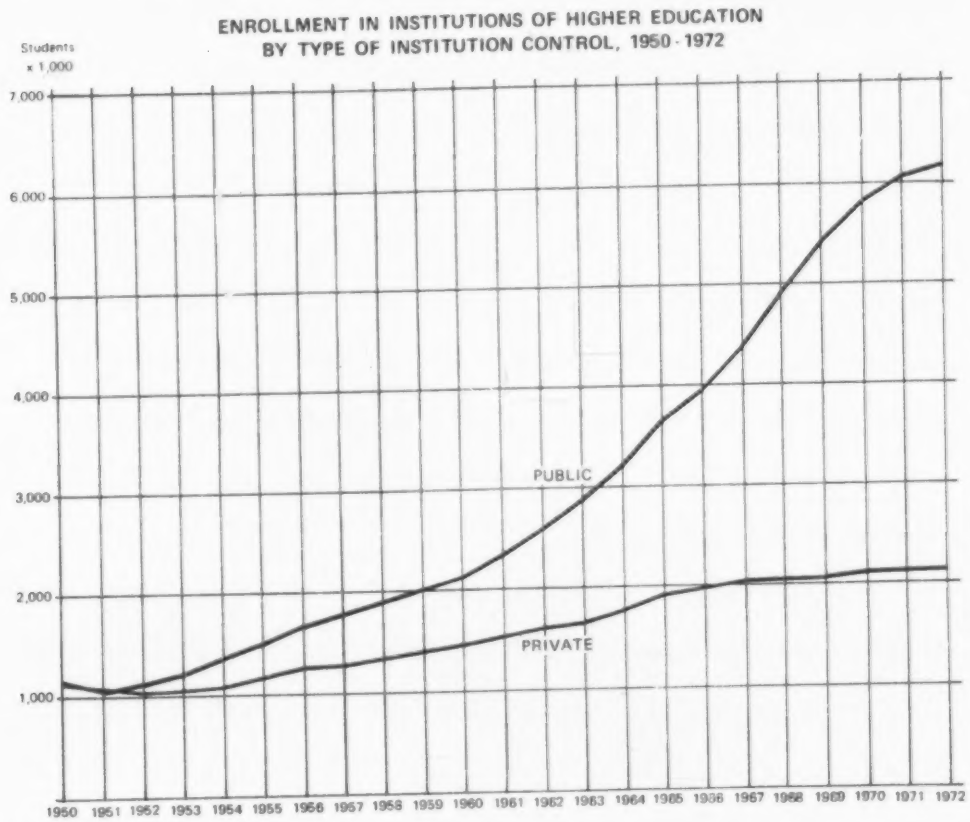

FIGURE 1

Source: American Council on Education, Fact Book on Higher Education, First Issue, 1973, p. 73.9.

more rapidly. Starting in 1968, private enrollment leveled off and during the last year or two it has decreased until today enrollment in higher education is 76% public and 24% private.[5] In some major states the ratio is even greater, as in California where it is 90% and 10%, and in a few states public institutions represent essentially all of higher education.[6]

The warning signs of crisis have been repeatedly announced. There has been a small but growing attrition of smaller colleges, the latest a 77-year-old junior college in Massachusetts and a 4-year-old black separatist college in North Carolina.[7] A number of well-known private universities, including Houston, Buffalo, Vermont, Temple and Pittsburgh, have become public or quasi-public institutions, as have a number of less well-known colleges. There has been a new trend toward merger as well.[8] But only recently has the threat to the viability and the influence of private higher education become serious, particularly in the ever-increasing gap between public and private cost to the student (see Figure 2).[9]

A parallel development has been a decline in the local control of municipal and community institutions. There have always been a modest number of city-supported universities such as City University of New York or the University of Cincinnati. Similarly, the community college was usually established through a local taxing district and governed by a local board. Today both types of institutions are steadily more dependent on state resources, and

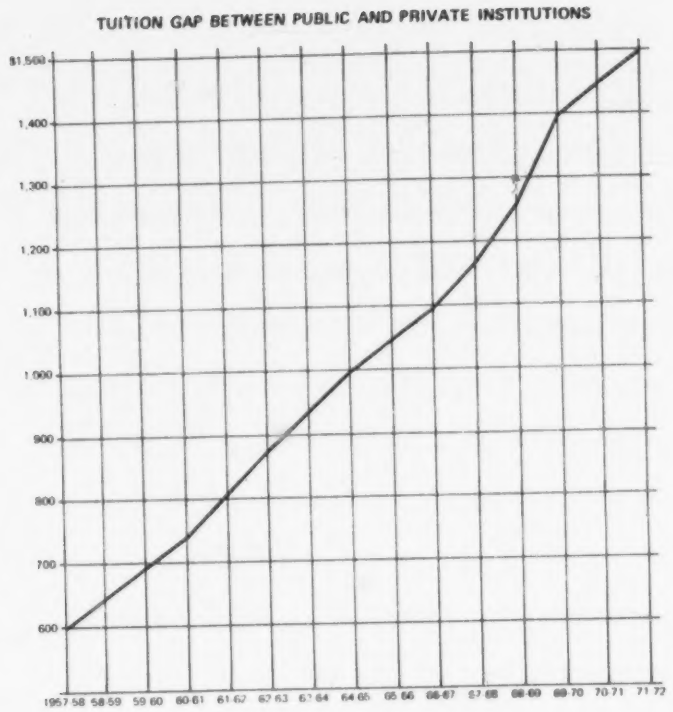

FIGURE 2

Source: U.S. Office of Education, Basic Student Charges, U.S. Government Printing Office.

in one case after another are being absorbed into state systems.

A powerful new trend is the shift in organization of the public sector. In state after state, public campuses have been organized into major multi-campus systems which now incorporate over three-quarters of the students attending state universities and colleges and a growing share of community college students. In some cases these started with a single university campus which in turn established branches (as at the Universities of Texas, Illinois and North Carolina). In other cases, disparate colleges, often small teachers' colleges, mining schools, and the like, were brought together and rebuilt into much larger state colleges and then supplemented by new campuses (as in the State University of

New York, or in the California State Colleges and Universities).[10]

Many states have developed more than one multi-campus system, sometimes based on geography (as in New York), sometimes based on educational function (as in California) and sometimes mainly on traditional or historic rationales (as in Illinois). As each system competes for resources, their large and increasingly politically-skilled bureaucracies begin to vie with each other.[11] One result has been that legislatures and governors have found an inevitable need for some agency to control and coordinate the systems themselves, accelerating the trend to coordinating bodies and super-boards as well as the trend to increasing the powers of these agencies. The following table shows that evolution.

TABLE: Changes in Form of State Coordination from 1939-1969

States with:	1939*	1949*	1959	1964	1969
No formal coordination	33	28	17	11	3
Voluntary coordination	0	3	7	4	1
Coordination boards	2	3	10	18	27
Advisory	(1)	(1)	(5)	(11)	(13)
Regulatory	(1)	(2)	(5)	(7)	(14)
Consolidated governing board	15	16	16	17	19

*Including the territories of Alaska and Hawaii.

Source: Adapted by Robert Berdahl, Statewide Coordination of Higher Education, American Council on Education, Washington, D.C., 1971, p. 35.

There are both advantages and disadvantages to these two potent and pervasive changes. With the growth in the numbers of students, the number of institutions, and the size of budgets, some

system of organization and management of institutions is required. It is manifestly impossible for a legislature to supervise the operation of 30 or 50 or 100 campuses. The use of the multi-campus system concept is a logical outcome of growth.

At the same time, there is a need for coordination, for an agency that represents students and the general public in statewide planning, for an institutionally independent but knowledgeable source of information for the legislature and governor. If coordinating agencies were not in place today, they would no doubt be invented.

Both types of agencies have made important contributions to the evolution of post-secondary education. Managerial posts in both are increasingly filled with capable administrators whose roles provide them with a broad perspective of the educational needs within their states. In a number of states they have addressed current problems with imagination and courage, sometimes becoming a major force for enhancing institutional diversity. One need only think of the experiments in open universities in New York and Minnesota, the non-traditional campuses in Washington or Wisconsin, the upper-division colleges in Illinois or Florida, the experiments with sub-colleges in Alabama or California, as well as many more.

As they themselves are quick to recognize, however, these managers are ever further removed from regular contact with students and faculty. And, particularly in the case of officers of multi-

campus systems, they are constantly restrained by the need to be the advocate for their institutional constituencies.[12]

Within multi-campus systems, with the increasing concern for accountability, there is an almost inexorable pressure for decisions to gravitate upward in the organization, off campus, into the home office. Often the result is that the system usurps prerogatives that were once exercised at the campus level, including admissions policies, financial decisions, policies with regard to faculty hiring practices and workloads, building priorities and architectural planning, control over new programs, and many others.[13]

Coordinating agencies have historically been frustrated by their inability to influence the course of the institutions, particularly the prestigious university within the state. The result has been a determined effort on the part of such agencies (often at the behest of the governor or legislature) to wrest power from the multi-campus systems. In the process, they have tended to slip away from the planning and coordinating role and become instead another organizational layer between the campus and the capitol, devoted to the problems of institutional management.

The danger lies in the tendency for these two types of agencies, with size and age, to become more and more bureaucratic. Similarity becomes easier to deal with than diversity. Administrators are chosen more for their skill and reputation for offending no one than for their imaginative leadership. Concern

for effective education matching the differing needs of students gives way to concern for the appearance of meeting directives from above. And the percentage of resources devoted to administration rises steadily.

The courts, which have historically left the educational community to regulate itself, are now being drawn into a role as decision-makers, expanding their interests in post-secondary education as they have everywhere in this age of litigation. New case law ranges over the right of the campus to determine admissions policies, faculty hiring and firing, student discipline, accrediting procedures, and the relevance of academic credentials in selecting an employee. In one area of academic administration after another, the potential for legal action has begun to alter the reality of decision-making.

Just as the trend toward campuses' losing their prerogatives as the ultimate decision-makers was becoming most pronounced, in many states public employees were gaining the right to organize and the federal National Labor Relations Act guidelines were modified to allow the organization of employees of any sizable college or university -- and faculty unions have been organized in increasing numbers. Often, where there is a system-wide centralization, the frustration of faculties in their attempts to resolve issues with the campus administration leads to attempts to create system-wide faculty unions with the power necessary to match that of the multi-campus administration.[14] By November

of 1972, 121 four-year institutions and 147 two-year institutions, all but a few publicly supported, had faculty unions, the most aggressive at public campuses which are parts of major systems.[15] Whatever its benefits, the result of unionization is usually the creation of a whole new bureaucracy, and once again educational issues are lost from view in the resulting reorganization of prerogatives and power.[16]

As a result of this organizational revolution, the relationships among the key actors in both the state and federal arenas of educational politics are being permanently altered. Basic political issues, who gets what and who decides what, are being resolved on new terms, and options once considered normal are being foreclosed.

Within the state arena, the shifting relationships between individual campuses and central authorities (and now often unions as well) are imposing change. The escalation of interest in accountability means more emphasis on budgets and program approvals as vehicles for control, and new efforts at regulating campus life through measures such as faculty work rules.[17] Competition between public and private institutions is affected as superboards move to extend their control to private institutions.

In the national arena, federal programs must contend with unfamiliar forces. New and effective power brokers from state systems argue for state agency clearance of projects and for larger voice in the making of federal policy. In this new political

setting, there is pressure to erode the historic federal practice of direct relationships with individual students and individual campuses and the even-handed treatment of public and private institutions.[18]

We believe there must be careful analysis of the evolving organizational structure of higher education by both federal and state policy makers. The Federal government has often, without such analysis, deepened the problems noted above by requiring the creation of state agencies or functions for its own bureaucratic convenience. We believe state officials, particularly those in statewide coordinating boards and the offices of multi-campus systems should give high priority to the creation of effective mears for achieving their objectives through incentives that allow decentralized management of the educational process in a conscious reversal of the current trend. Both types of agencies need real power for the exercise of their responsibilities. Incentives powerful enough to alter traditional faculty and campus behavior are required in order that education within the state can be responsive to public need.

We believe the Federal government can assist in the reversal of this trend toward centralization of educational decision-making by reviewing its demands on states for centralized agencies, by recognizing the differences between multi-campus systems and coordinating boards, by helping these agencies strengthen the incentives for campus and faculty responsiveness, and by increasing

emphasis on direct funding of students in order to maximize their freedom of choice.

The Restraints of Professionalism

Professionalism in our society is increasing and the concept of the professional credential is being applied over an ever-wider part of the spectrum of careers. At one point, credentialized professionals included doctors, lawyers, and the clergy, then architects and engineers, then psychologists and teachers, and now morticians and dancing school instructors. Almost all occupational groups gravitate relentlessly toward becoming licensed and restricted professions.[19] Essential to this has been a defining, through accreditation, certification and licensure, of the educational requirements for entry to the profession. Group self-interest is not per force unhealthy. But the rush toward professionalization -- particularly in the last three decades -- has often been at the expense of equitable access to careers, consumer protection, and individual opportunity for advancement.

Licensing has become an occupational status symbol. In 1939 the Wisconsin legislature mandated that house painters must take examinations and be licensed. A person caught painting without a license could be arrested and fined. The State Supreme Court found the law unconstitutional. In 1955 a bill was introduced in California which would have required the licensing of grass-cutters as "maintenance gardeners." The bill included provisions for a state board to administer the profession to prevent "gross incompe-

tence, negligence and misrepresentation." Violators could have been punished by a fine of up to $500 and up to six months in jail.[20] This bill did not pass, but hundreds have. Such laws are sought not only to provide for regulation of entry into the field, but to provide the group in question with a primary role as the regulators. About half of the occupational licensing laws in the states require that all members of the licensing board be licensed practitioners.[21] Where not specifically provided, professional associations are usually "consulted." So the CPA's sit on the State Board of Public Accountants, and the architects license future architects, all in the name of the state.

If the standards used by examining and licensing boards were reasonably related to the demands of the occupation, the self-serving nature of the process might be tolerable. However, the standards employed often bear only a tenuous relationship to the competencies needed for successful practice and instead often reflect more the profession's image of itself.

In similar fashion, emerging professional groups seek to gain control over the training of new members through the process of accreditation. Since the American Medical Association's publication of a list of approved schools in 1906, practically every occupational and professional group has sought to approve educational programs in their respective fields.[22] Unlike regional accrediting associations, professional and occupational accrediting bodies are nationwide, and derive their power from the

professional association. Consequently, they are responsive to the imperatives of the profession, not of the schools, their students, or the public. Because of the linkages with state licensing, educational institutions are in a weak position to argue with a professional accrediting group, for fear of jeopardizing their approved status, and as a result, barring their students from future careers. In some cases professions use accreditation as a means of restricting the number of entrants in an allied occupational field, as with the control exercised over medical technology education by pathologists.[23]

The standards utilized by professional accrediting groups have rarely been validated. Most have yet to demonstrate a relationship to later career success, nor have the standards employed been shown to correlate with even traditional indices of academic quality. Rather, standards in professional accrediting seem to be based on professional value judgments. Most frequently they concern indices of professional status, such as the number of Ph.D.'s on college faculties, library holdings, administrative structures and so on.[24] Thus the accrediting arm of the American Bar Association is generally acknowledged as having driven out most night law programs due to its insistence on full-time law school faculties.

In order to cement their positions, professional and occupational groups seek tie-ins between state licensing and professional accreditation. Under the guise of protecting the

public, licensing laws stipulate that one must graduate from a program accredited by the professional accrediting agency. Thus, just in order to sit for the bar exam, 39 states require graduation from a law school accredited by the American Bar Association, which, not coincidentally, also writes the exam, and evaluates the "moral fitness" of prospective members of the Bar.[25] Often members of licensing boards are officers of professional associations, or serve on accrediting agencies as well. Thus, states have vested professions with legal sanction, reinforcing their power over individuals, and virtually insuring the compliance of educational institutions.

As public funding of education has increased, Federal and state governments have turned to professional accrediting agencies to determine the eligibility of educational institutions. The U.S. Commissioner of Education currently recognizes over 30 professional agencies which determine eligibility for federal programs.[26] By making eligibility for funds contingent on professional accreditation, further sanction is accorded professional groups. For an educational institution, losing professional accreditation may not only mean jeopardizing the opportunities of its graduates, but the loss of public funding as well.

Society needs protection from fraudulent practitioners, and assurance that individuals are competent to practice. Professional groups have legitimate interests in safeguarding public trust of the profession. Individuals have a right to be evaluated on the

basis of their knowledge and competence, and to expect that such evaluation will be conducted under equitable conditions with valid measures. Yet too often licensing and professional accreditation develop into an entanglement of arbitrary rules and procedures which undermine individual opportunity, erode institutional flexibility, subordinate protection of the consumer, and give rise to major social inequities.

In an ever-increasing number of fields, the delicate balance between considerations of quality and equality, individual rights and consumer protection has been lost.

* * * *

With every passing year, our post-secondary education system becomes further entangled in laws for licensing, educational requirements for credentials and more specialized procedures. Each year, the role of private, municipal and community-controlled higher education diminishes. Each year, the autonomy of the campus erodes as influence or control over some further aspect of the educational process moves toward a multi-campus system headquarters, a governing board, a licensing agency, a faculty union, a state or federal court, or a legislature. Each year, change in the system of education becomes more difficult. Now, while it is still feasible, the Federal government must consider how it can assist in the encouragement of a more open and flexible educational community.

V. THE FEDERAL PRESENCE IN HIGHER EDUCATION

Today the Federal government is deeply involved in post-secondary education, more than is generally recognized. Not only is the Federal government a major source of support, but it is also a major source of regulation. Its policies and programs in areas other than education have important, though often unintended, effects on the educational community. Despite being studied and restudied, federal policies for post-secondary education often fail to reflect either the changes necessary because of the extent of federal involvement, the new role of state agencies, or the differing requirements of an egalitarian era.[1]

Early federal aid to higher education began in the first year of the Constitution with grants of public lands for college endowments.[2] West Point, the first federal college, is over 170 years old. The Morrill or Land Grant College Act was passed more than 110 years ago. That act, with its emphasis on applied science and education for the non-elite, is a reminder of how powerful and how positive federal action can be.[3] Federal interest in the support of colleges and universities can hardly be described as something new.

But until World War II, federal involvement was modest and federal influence slight. An exception was the one-time impact of the endowment of the Land Grant Colleges. There were also precedents for federal aid in some of the programs of the New Deal, but

these were seen less as antecedents and more as aberrations. As late as 1940, total federal funding was less than $50 million per year.[4] For most of the 1600 colleges and universities of that time,[5] federal policy toward education was of little consequence.

With the start of the post-war period, all of this changed. At the end of the war, federal funding had reached $100 million annually. Two and a half decades later it had increased sixty-fold.[6] Over a dozen federal agencies besides the Office of Education now have extensive dealings with the institutions of post-secondary education, ranging from support of research in nuclear physics by the Atomic Energy Commission to support of occupational training by the Department of Labor. Altogether there are some 375 federal programs administered by 60 agencies that affect post-secondary education.[7] Federal regulations constrain both students and institutions. Federal policies in foreign or domestic affairs often inadvertently become policies in education.

In examining the broad range of the federal presence and the evolution of federal programs over the past twenty-five years, we conclude that:

--The federal intent to accomplish one goal often leads logically to a federal interest in other goals.

--Programs intended to deal with a limited group of institutions tend to become diffused over time to cover a broader range of institutions.

--Because of the decentralization of policy-making and the multiplicity of agencies, one federal initiative or regulation sometimes runs counter to another.

--A sense of legitimacy for an issue of educational policy is often created by the existence of a federal program.

--There has been a general trend toward concern for equity.

--Unintended effects are often as significant as the intended.

--The Federal government can, on occasion, end programs.

The Post-War Rationales for Federal Involvement

The growing involvement of the Federal government in higher education flowed naturally out of the Second World War. The first interest was support of research. Starting with a broadly-accepted need to maintain a strong defense, it expanded with time to encompass support of research for other national concerns in atomic energy, space, health, education, poverty, and recently into the arts, the humanities, the environment and energy.[8] As federal support broadened beyond an interest in defense, it also broadened beyond the need for new knowledge to include the need for trained manpower. For example, the need for new knowledge in high-energy physics was extended to the need for physicists, and in turn to the need for greater numbers of college faculty teaching physics.

The second interest was access. The success of the G.I. Bill demonstrated the validity of college attendance by a far wider group than had originally been considered "college material." In turn this led to national interest in educational opportunity and to a whole range of student aid programs. Increasingly these

focused on those least likely to gain access without federal help.

As support of both research and students increased during the 60's, a third rationale for institutional support began to evolve. If it was important to conduct research or to educate, then it was important that the institutions be properly equipped to do the job. Through construction grants, funds for support activities such as libraries, or support for particular departments, the Federal government began to concern itself with the financial needs of institutions of higher education themselves.

The rapid increase in research funding, student aid, and institutional support, coupled as it was with the rise in state and private support for higher education, was a basic factor in the enormous growth of the 1950's and 60's.

The Dynamics of Federal Funding

The growth in significance of federal support was remarkable (see Figure 1). During this twenty-five year span, total private, state and federal expenditures for higher education grew three times as fast as the Gross National Product (GNP) of the United States.[9]

The first widespread involvement of the Federal government in the post-war period was in academic science. Whereas prior to the war university research had totaled $15 million and had been mainly agricultural, by 1970 it covered an enormous range of activities and totaled over 100 times that level.[10] Three major trends are evident in the 25 years of federal support of academic

TOTAL FEDERAL EXPENDITURES FOR HIGHER EDUCATION, FISCAL YEARS 1938-1973
(in millions of dollars)

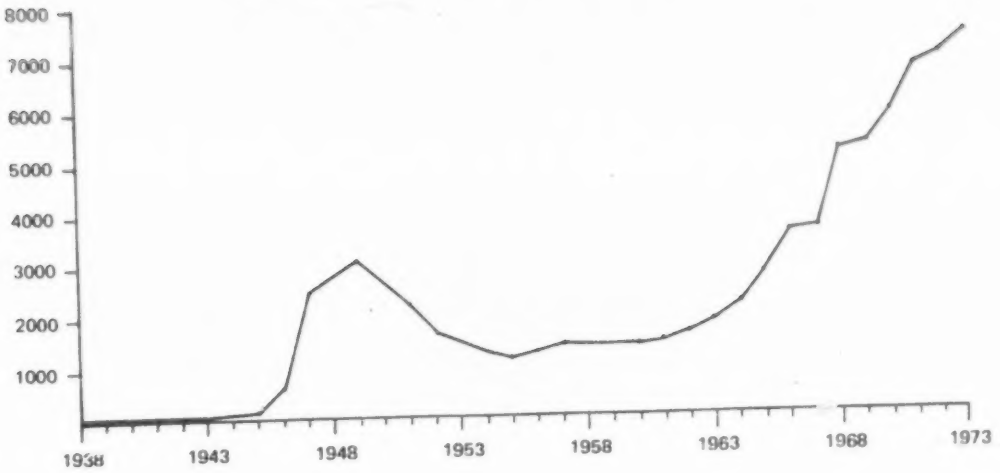

FIGURE 1[11]

research: steady growth; the gradual shift from military to civilian sponsorship; and the inclusion of additional fields of study, more sponsoring agencies and greater numbers of universities receiving research grants.[12]

The Federal government became a main agent in the surge of American research and scholarship to world leadership in one field after another. First the Defense Department and the National Science Foundation (1950) concerned themselves with science, as did the Atomic Energy Commission and later the National Aeronautical and Space Administration. Then medical research through the venerable Public Health Service and its offspring, the National Institute of Health, began to expand rapidly in the 1950's, later including support in the social sciences . In 1965, two additional

FEDERAL FUNDING FOR RESEARCH AND DEVELOPMENT AT
COLLEGES AND UNIVERSITIES BY AGENCY, FISCAL YEARS 1963-1972
(in cumulative percentages)

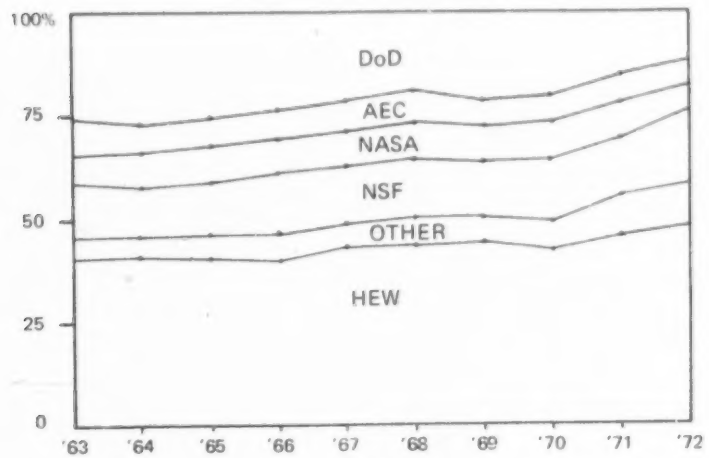

FIGURE 2[13]
Source: National Science Foundation

fields, considerably removed from the hard sciences, began to receive federal support with the establishment of the National Endowment for the Arts and Humanities. In 1972, the National Institute for Education was established to upgrade the research in that field which had been supported for some time by the Office of Education.

Only a small share of the institutions have ever been recipients of any significant amounts of federal research grants. Eighty-six percent of all research funds go to the top 100 universities. But those 100 have become models for almost all institutions, and faculty standards everywhere have been influenced

TOTAL FEDERAL FUNDING FOR RESEARCH AND DEVELOPMENT
AT COLLEGES AND UNIVERSITIES, FISCAL YEARS 1963-1972
(in millions of dollars)

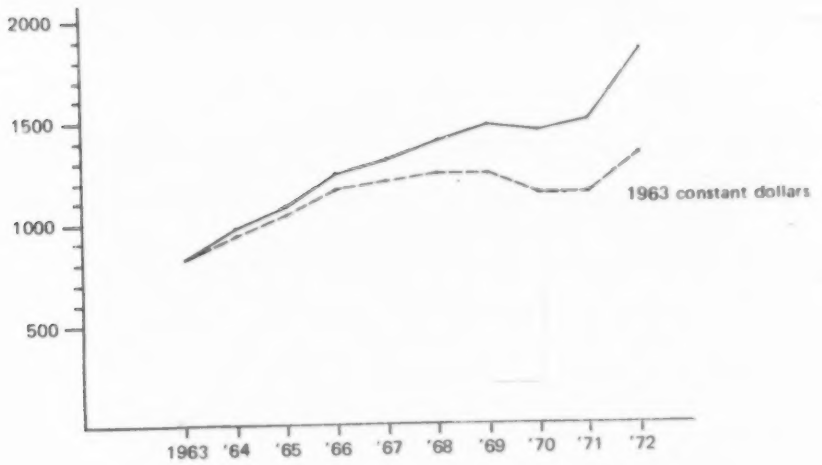

FIGURE 3[13]

Source: National Science Foundation

by this reinforcement of the emphasis on research and publication.[14]

After a period of uncertainty, when federal funding in constant dollars declined, research support appears headed upward. Still not completely resolved are the questions of the proper balance between basic and applied research and the role of the universities in each, particularly with regard to the new fields of national concern such as the environment or energy.

Some precedent for the federal interest in student aid existed in the New Deal's National Youth Administration which had provided college work-study funds.[15] The large-scale federal support of students really began in 1944 with the G.I. Bill, which was

intended at first to help the readjustment of veterans. Because it had no academic requirements for eligibility (other than admission to a certified program), it had a major influence on the public conception of who should be eligible for college entrance and student aid. At its peak in 1948, G.I. Bill expenditures for education reached $2.8 billion, and supported over a million college students, or one out of every two male students, as well as even larger numbers enrolled in vocational programs.[16] It is still the largest program, representing over forty percent of federal student aid.

Throughout the 1950's, the number of G.I. Bill beneficiaries dropped off. At the same time, graduate fellowships and traineeships, funded by a variety of federal agencies in response to their concerns over trained manpower, grew rapidly until 1968 when, under the shadow of oversupply, they began to diminish.[17]

During the 1960's, three new trends developed. A variety of new programs were established which, with the resurgence of the G.I. Bill, meant substantial funding growth. Increasingly, the programs were focused on students of low family income (Social Security Student Benefits, Work-Study, Educational Opportunity Grants, Talent Search, Upward Bound, and even to a degree the G.I. Bill because of the changes in the makeup of the Armed Forces).[18] The newer programs, with the exception of Social Security, provided blocks of funding to the colleges and universities, who then provided aid to the students. A major reversal of

FEDERAL EXPENDITURES FOR STUDENT AID
FISCAL YEARS 1943-1973
(in millions of dollars and in millions of 1938 constant dollars)

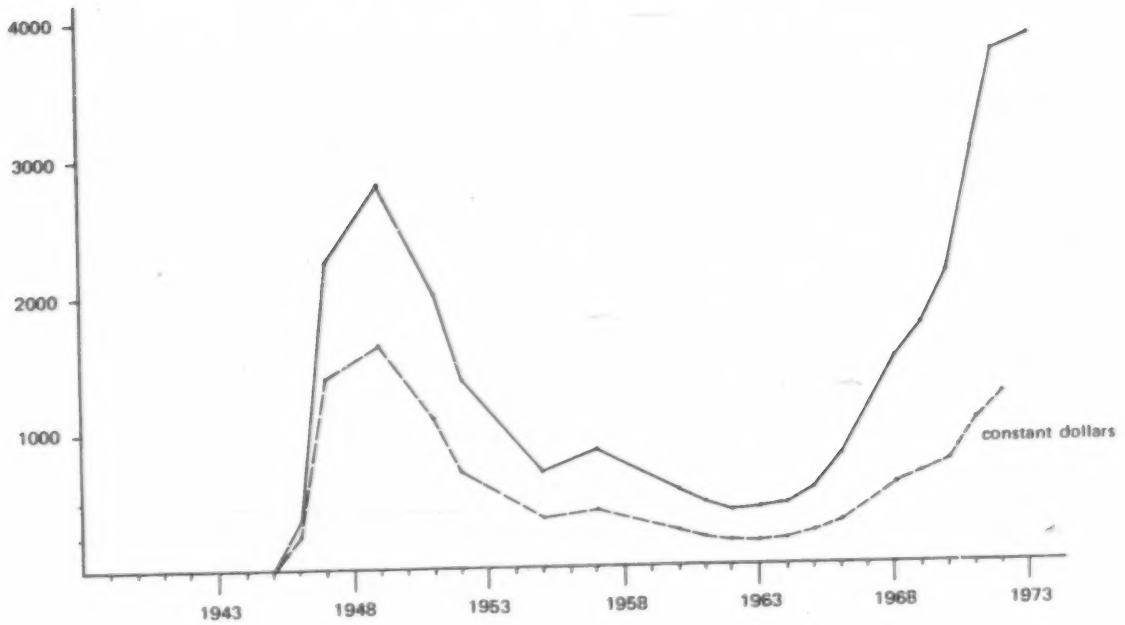

FIGURE 4[11]

this trend occurred with the establishment of the Basic Educational Opportunity Grant Program in 1972, which, like the G.I. Bill or Social Security, provides funding directly to the student.

There are a number of basic questions ahead: what is to be the federal interest in support of graduate education; will the emphasis shift to programs of direct funding of students as opposed to those programs where the institution acts as an intermediary; what will be the future role of the G.I. Bill as the Department of

TABLE: Federal Outlays for Undergraduate and Graduate Student Support by Agency and program, Fiscal 1972 (in millions)[19]

Agencies and programs:	Outlay
Health, Education and Welfare	
Office of Education	
Educational Opportunity Grants	$ 168
Work/Study Grants	250
Guaranteed Student Loans	227
Direct Student Loans	286
Social Security Administration	521
National Institutes of Health	207
Health Agencies and Other	116
Veterans Administration (G.I. Bill)	1,437
National Science Foundation	30
Defense	88
Justice	23
Other	23
TOTAL	3,376

Defense shifts to smaller and volunteer Armed Forces; how should federal programs treat costs to the student, including tuition, and as a consequence, should federal programs help students with the added costs of attendance at private or out-of-state institutions?

Not all federal programs continue to grow indefinitely. Support of construction is one example of the retreat of a federal program in the face of changing conditions. A New Deal precedent also existed for federal aid for campus construction in the extensive program of the Public Works Administration which lasted until 1939.[20] In 1950, with loans for faculty and student housing, the Federal government began regular construction support. By 1966 almost $3 billion had been loaned for such purposes.[21]

FEDERAL EXPENDITURES FOR CONSTRUCTION
FISCAL YEARS 1938-1973
(in millions of dollars and in millions of 1938 constant dollars)

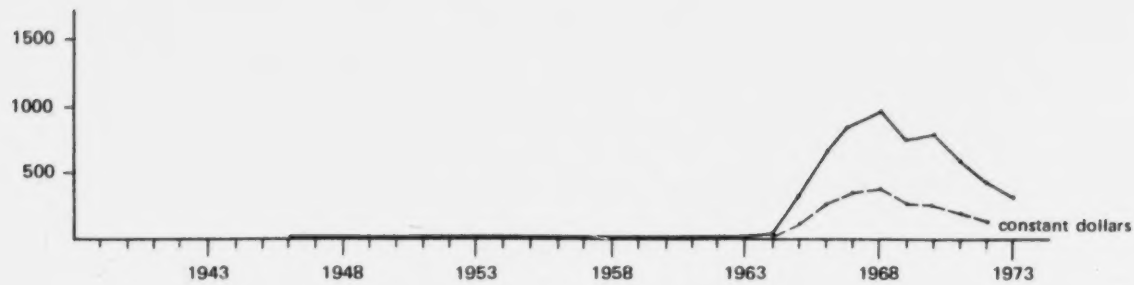

FIGURE 5[11]

Grants for laboratories and research facilities were authorized in 1956. As the expansion of colleges and universities accelerated in the 60's, direct matching grants were instituted first for undergraduate facilities, then for graduate construction, and finally for community colleges.[22] Obligations under the Higher Education Facilities Act reached an annual peak in 1967 of $720 million, but in succeeding years, as the perception spread that higher education had expended enough, physical plant support was rapidly cut back, and there is little likelihood of its resuscitation in the foreseeable future.[23]

Only later in the post-war period did federal institutional aid become a major issue. Not that it was a new subject. The first aid of this sort had been to found and then support on a yearly basis special-purpose colleges, such as West Point or Howard.[24] In 1890, when the Congress was concerned about the

the continuing health of the Land Grant Colleges it had helped to found, yearly aid was provided by the second Morrill Act, which persists to this day as a small, direct subsidy.[25]

A new phase began in the late 1950's and 1960's with a variety of institutional allowances, each intended to provide assistance to institutions which were meeting specific federal needs.[26] But during the 1960's and early 1970's, pressure mounted from the institutions to insure their financial health through general grants. The Higher Education Act Amendments of 1972, if funded, would carry out that evolution by providing a comprehensive program of grants to essentially all institutions of higher education.[27] The debate over whether to proceed with that program consequently marks an important choice in the direction of federal policy.

Programs of direct funding have not been the only means of providing financial support. One of the most important -- and

FEDERAL EXPENDITURES FOR INSTITUTIONAL GRANTS
FISCAL YEARS 1938-1973
(in millions of dollars and in millions of 1938 constant dollars)

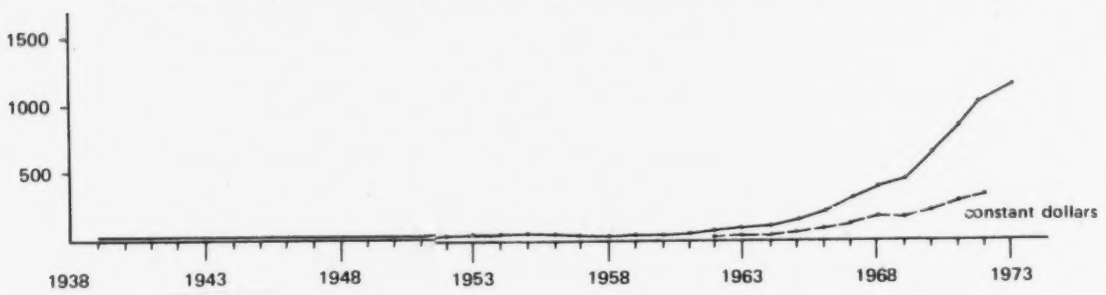

FIGURE 6[11]

effective -- forms of financial encouragement has been tax incentives: a general exemption for non-profit post-secondary institutions from income or capital gains taxes, and deductions for individuals for philanthropic contributions to colleges and universities, the latter of critical importance in almost $2 billion of donations to public and private colleges and universities.[28] In addition, tax exemptions apply to the parents of students enrolled in post-secondary institutions.[29] Over the last five years, as the interest in tax reform has moved to the forefront, various proposals have been advanced that threaten educational philanthropy.[30]

The Proliferation of Federal Influences

Federal influence extends beyond financial support, either direct or indirect. As federal funding has grown, so has the federal tendency toward regulation. During the post-war years, the Federal government has come to regulate, often unintentionally:

--Faculty degrees, library size and other similar academic concern, indirectly through federal support of accreditation. Originally a form of self-regulation, accreditation now depends on the persuasion of a seal of approval backed by the power of eligibility for federal funding. Accreditation is also used as a control for a host of other federal activities ranging from control of which institutions foreign students may attend as aliens to where members of the Armed Forces may go if applying for early release to attend college.[31]

--Affirmative Action requirements, both in admissions and employment.[32]

--The accounting practices of institutions which administer research contracts.[33]

--The financial plans of colleges and universities that apply for emergency assistance.[34]

--Publication of the results of research sponsored by certain agencies.[35]

--Student, faculty, and staff discipline with regard to campus disruptions.[36]

Beyond the examples noted above, a number of proposals for further regulation have been discussed seriously by the Congress. These include the termination of research funds from the Department of Defense to any university proposing to drop its supposedly voluntary participation in ROTC,[37] the mandatory inclusion of student participants on all boards of trustees,[38] or the granting of institutional aid based on a formula utilizing a federally-defined standardized credit hour.[39]

Recently there has been another series of federal decisions which have brought onto the campus an amalgam of federal powers and processes from which universities and colleges have long been shielded. Until the last few years, most federal law assumed that colleges and universities were different types of institutions that should be shielded from many federal programs. Lately they have been brought into conformity in a rush. Just in the last few years they have been:

--Required to file income tax returns (even though not subject to tax).

--Required to pay unemployment compensation.

--Subjected to occupational safety and health regulations.

And, in what is probably one of the most significant decisions

affecting the nature of post-secondary education in this decade, yet one adopted almost without debate, higher education is now subject to the regulations of the National Labor Relations Board.[40]

The actual import of federal programs often extends far beyond the original narrow intent. Just as was true with the G.I. Bill, Basic Educational Opportunity Grants are likely to affect the national perception of who should be a student. Federal research grants established a whole new system of rewards which not only reinforced "publish or perish" but which tended to encourage faculty loyalty to the discipline rather than the institution. The federal decision to use state agencies for coordination of programs of student aid, facilities construction and technical services caused a significant acceleration of state efforts toward creating agencies to coordinate and control <u>all</u> of post-secondary programs.[41] The recent intense debate over federal guidelines for state coordination of vocational and cooperative programs and state planning (the so-called 1202 Commissions) is an example of how even a modest federal intent can become amplified to have a major impact at the state level.

Frequently federal policy in areas <u>outside</u> education has had considerable influence on post-secondary education as well. The establishment of the Peace Corps or the changes in the draft are only two major examples. A decade from now, it may well be evident that decisions made now about policy for Cable TV will have important effects for post-secondary education.

In short, the post-war period has meant first, a vast expansion of federal support and involvement, more than is generally recognized; second, considerable extension of federal regulation and control; and third, a removal of the universities and colleges from their past ivory tower isolation through changes in a broad range of general federal programs.

The New Needs of the 1970's

The federal role in post-secondary education since World War II has served the country well. But the rationale for federal support during the 1950's and 1960's can no longer justify the same approaches through the 1970's.

There remains a need for a strong and vigorous federal role in research. But few shortages of trained manpower exist. The need now is for better training.

There remains a need for federal support in equalizing opportunity for post-secondary education. But federal financing for access alone is not enough. The new need is for access to forms of education which will be meaningful to the ever more diverse students seeking educational opportunities.

There remains a need for federal assistance to the institutions of post-secondary education. But this assistance should be directed not to the support of expansion per se, nor to federal assurance of a permanent level of institutional funding, but to specific reforms in the national interest.

The central concern of federal policy, therefore, must be the

need for a more effective system of higher education. By this we mean concern for the quality of student learning and the relationship of that quality of learning to the resources used. The value of education in our society cannot be measured by simple quantifications such as the number of students entering college or number of dollars Americans are prepared to provide. Increasingly, the question must be asked as to what types of institutions and programs are effective in meeting the educational needs of American society, and how federal support can aid students and institutions in accomplishing their goals.

VI. THE FEDERAL ROLE IN POST-SECONDARY EDUCATION

There has never been, and we believe there should not be, an all-encompassing role for the Federal government in this country comparable to that of a ministry of education in Europe, where national governments are charged with the responsibility for the funding, planning and managing of post-secondary education. Rather, the Federal government has been concerned with creating the conditions under which the educational needs of American society are likely to be met.

This is not to minimize the significance of the federal role. Federal funding has opened college opportunity to whole new segments of society; federal classifications for statistical purposes often define what is legitimate in education; federal regulations set limits on many academic decisions. If anything, the American approach is more demanding, requiring both imagination and prudence. What are the conditions necessary for more effective education? How can the Federal government encourage and sustain these conditions without stifling initiative in the educational process and without undercutting the role that states might appropriately play?

Forces for Change and Accountability

In the process of change and accountability in post-secondary education, each institution is responsive to a balance of forces. The balance among these forces is always shifting as both the

organization of education and the demands of society change.[1]

The interests of students as they seek their own education are one force, the interests of faculty and of administration are others. The influence of outside educational agencies -- accrediting associations and the disciplinary guilds -- are also factors, as are alumni and donors. An increasingly potent set of influences extend from administrators in the central offices of multi-campus systems, from statewide coordinating boards, and from the legislatures and governors' offices. In recent years, the several agencies of the Federal government have generated a significant set of forces as well.

Action to affect the balance among these forces can take fundamentally different forms. Change can be induced by incentive approaches such as by the offer of funds for specific purposes. Or, institutional directions can be enforced through regulatory approaches such as Affirmative Action requirements or procedures requiring clearance of new academic programs. For a given end, either mode -- incentive or regulatory -- may be appropriate. But there is a growing tendency toward the automatic use of regulation without adequate consideration as to whether incentives would be preferable. A recent example has been the attempts of various states to regulate faculty teaching loads.[2] The trend toward regulation has been amplified by a general tendency to view agencies of government as having the prime if not the sole responsibility for the enforcement of accountability throughout society.[3]

There are, however, two very different strategies for achieving accountability. Strengthening the tendencies toward central control aimed at rationalizing and ordering the system represents one strategy. Strengthening the incentives for self-regulation, by making better information available, by opening the choices available to students among institutions, by encouraging institutions to respond to these choices, is quite another.

For reasons described in Chapter IV, the balance of these forces for most of post-secondary education is steadily shifting toward central control. In public institutions, effective control over decisions of budgeting, admissions, approval of new programs, promotion and tenure is slipping from campus-based administrators and faculties to administrators arrayed above them in an evolving hierarchy of governance. And as state programs and powers are extended, both public and private institutions are affected.

In part, the determination of these agencies to exercise power more directly stems from frustration with the intractability of the problems of higher education and the difficulty of generating a responsiveness to public needs on the part of colleges and universities.[4] But in large measure it represents a tendency inherent in any large organization for the forces affecting an institution to become permanently unbalanced, for those influences radiating downward from the upper levels of the hierarchy to become dominant, for decision-making to become increasingly

insulated from other influences. As higher education becomes organized as a service bureaucracy, only a determined effort will insure a continuing role of any significance in the decision-making process for faculty, students, campus administrators and alumni.

Rationalization or Competition

On all sides today there are proposals to create voluntary or enforced coordination among institutions.[5] The motivation is in part to enhance efficiency by division of labor, elimination of overlapping programs, use of common purchasing, assurance of programs and campuses of large enough size, and the reduction of competition. All of this seems based on the assumption that there is one right way to produce a graduate, that education is like an assembly line with units of instruction that are interchangeable. If so, the only issues left for consideration are the quality of instruction and the cost per credit hour.

Even if one were to accept these simplistic notions, the assumption that efficiency will be achieved through this approach seems questionable. There is growing evidence that many of the benefits of close central control are elusive. Whereas it has been generally assumed that substantial economies of scale result from large campuses and centrally-administered systems, recent studies indicate that the most economic size for a campus may be much smaller than anticipated, certainly under 10,000 students and

perhaps under 5,000. Moreover, the central administrative offices for a number of the multi-campus systems have grown so large that they themselves now represent a noticeable share of the higher education dollar.[6]

More importantly, those administrators and policy makers interested in improving cost-effectiveness have generally failed to see that the greatest gains will come from concentration on effectiveness rather than cost. Serious efforts to reduce the inputs to cost are important, but will result in far smaller gains in efficiency than attempts to match the student and the learning style better. Similarly, efforts to encourage students to be in college only when they are interested in learning what the college can teach will, we believe, achieve gains in both the effectiveness of learning and efficiency in the use of resources many times larger than any of the factors presently under scrutiny.[7]

Too often, the problem of efficiency is thought of in terms of the need to reduce the number of Slavic language departments in a given city from two to one. There is an obvious waste of resources due to such overlapping of specialized and costly programs. Savings can be made through consolidation where the numbers are small and the students of comparable interests and abilities. But in the same city, there may be 10 or even 20 departments teaching English. A single approach to teaching English in a single setting would meet the needs of only a small minority of students. In such cases, the approach to teaching

cannot be standardized because what students want to know and how they go about learning cannot and must not be standardized. Peer learning is a crucial element, as is a sense of community and a personal involvement, none of which is easily standardized or coordinated.

Surely there is a need for coordination of post-secondary education. Statewide planning is essential.[8] Articulation and transfer problems among institutions are real, and state agencies are the logical locus of such coordination. A number of these agencies, as noted earlier, have also demonstrated that they can be a force for diversity among institutions.[9] But this is only one kind of innovation -- planned from the top to meet a widely-perceived need. There is also a need to capitalize on the imagination of the many potential educational innovators who start from the bottom and see an opportunity to create a new program, a new style of teaching, or even a new institution to meet student needs. In the case of either kind of innovation, centrally conceived or grass root, as state systems grow older, as political tensions increase, as budgetary controls are refined, strong pressures develop that inhibit or erode new concepts.[10]

Coordination is necessary, but all too often policies intended to provide coordination work to inhibit mobility, innovation and competition. When decision-making is remote from the campuses, there is an easy slide from policy direction to operational control, from concern for education to concern for management, from interest

in diversity to standardization across units, and from incentives to regulatory approaches. We believe competition for students and resources is a more desirable means of achieving public accountability .

Complete automony for the campus can of course be wasteful or irrational, particularly if, as in the 1950's and 1960's, both resources and students are so plentiful that competitive forces are weak. Then considerations of academic prestige played too large a role, with every college opting to become an elite research university, every student encouraged to become a Ph.D. New factors in today's world of post-secondary education such as the end of the draft and the abundance of graduates in the job market make students more serious in their educational choices. The tightness of budgets and the leveling of enrollments, both new factors, make institutions more responsive to the real needs of students.

Even with these new factors pressing institutions toward a sense of accountability, we do not propose sole dependence on autonomy and the workings of the educational marketplace for insuring that the sum of actions of the institutions meets the needs of the public. There is too much evidence that given the chance, institutions and their faculties will be inner-directed -- teaching what they want to teach, lecturing in the style they find comfortable and concentrating their attention on the students they find compatible. One need only note the continuing lack of

attention to high attrition rates or to the measurement of the effectiveness of current teaching methods. As in all of society, institutions try to avoid the impact of competitive forces. State campuses, particularly, often look toward administrative help to assure an adequate flow of new students or the budgetary starvation of an effective public rival.

Our point is that accountability through competition can work, but that incentives must be strengthened. And there must be an effective means for insuring, through state and federal action, attention to those problems of public concern for which competitive forces work poorly. Equally important, we believe that accountability through central direction will not work and will bring in its wake new dangers to the freedoms so necessary in education. Therefore, in structuring both state and federal programs, the critical question is how to create incentives effective enough to achieve the broad, publicly determined goals while encouraging decentralized initiative and imagination to determine the specific institutional mission and methods. Rather than telling people what to do, federal efforts should create pressures and incentives that encourage educators to rethink for themselves what they are doing.

For competition to work, differences among institutions and programs must be apparent. There is a good deal of evidence to suggest that when information is available, students are sensitive to the differences among institutions and to the effectiveness of

the education they offer. Undergraduates sensibly sort themselves as much by the environment for learning provided through an institution as by the courses offered. G.I. Bill students did not turn out to be as overly narrow in their educational choices as many had predicted. Graduate students have for some time tended to shift from areas of oversupply to areas where they perceive better career opportunities. Given choice, they shift from less effective programs. Once the opportunity was opened to black students, they moved toward a new mobility across a broad range of institutions.[11]

We believe the need for centralization and rationalization has been overestimated and its dangers underestimated. It is possible to encourage competition within the educational community to provide the maximum opportunity for the student and the vitality necessary in tne institution for constant re-evaluation and self-renewal. The ultimate test of accountability should be whether institutions can attract students and resources that match their missions. This means competition between public and private institutions, public and public, private and private, campus-based and non-campus-based programs, proprietary and non-profit -- but a healthy competition between educational programs based on their effectiveness, not between sectors or systems based on their political muscle.[12]

The Federal Role

Federal influence has grown steadily in the post-war period. Both the state and federal share of expenditures have grown until they each now represent about 30% of the total. Any thoughtful analysis of the federal role must therefore, take into account the role of the states. Theirs antedates the federal role, tracing a lineage all the way back to support for the first American college by the Massachusetts Bay colony in 1636.

TABLE 1: Major Sources of Income for Colleges, Universities and Proprietary Educational Institutions, 1971-72 (in billions)

Sources of Income	Institutional Support	Student Aid	Total Support	Percent of Total
Student payments for tuition and other fees	$10.6	$(4.2)	$ 6.2	20.8%
State and local government	8.8	.3	9.1	30.5
Federal government	4.6	3.7	8.3	27.9
Gifts and Endowment earnings	2.5	.2	2.7	9.1
Auxiliary enterprises and other activities	3.5	--	3.5	11.7
TOTAL	$29.8		$29.8	100.0%

Source: Unpublished data of the National Commission on the Financing of Post-Secondary Education.

But, historically, the state and federal roles have been very different. Basically state governments have been operators of certain of the institutions of higher education and the Federal government has been a funding agency for special concerns. There

has not, however, been a single federal-state division of labor. In university-based research, for instance, the federal is dominant in funding, planning and evaluation, while states play a supporting role only. In the field of civil rights, federal regulatory powers are used to force institutions and states to alter policies of racial discrimination. In the heyday of construction support, the Federal government served as a supplementary funding agency, helping to support hard-pressed institutional or state capital budgets.

We believe there should be consciously different federal and state roles and that the relationship should vary depending on the objectives. There are some aspects of post-secondary education where the Federal government is the only agency of government charged with the responsibility for action (as in Affirmative Action or ROTC) and others (such as research where it is the most logical. But there are also roles that we believe to be inappropriate -- for example extending its role as a direct operator or as a general financial patron of institutions.

The Federal government should not operate as a fifty-first state. As federal agencies become more deeply involved in post-secondary education, there is a natural temptation for them to slide into regulation of the organization and operation of institutions (in response to the frustrations felt within the Federal government) or into general subsidies (in response to pressures from the colleges and universities). We believe this

would be both ineffective and dangerous. For the public institutions this would mean that federal funds would to a large extent substitute for state funds and the institutions would be left to cope with the regulations of one on top of the other. For private institutions it would mean a diminution of autonomy and an increasing tendency to turn toward the Federal government rather than the education marketplace for direction. For the Federal government it would mean the need to develop federal standards defining eligibility (with the need for a federally defined credit hour or standard of enrollment) as well as a diversion of its attention and resources from its appropriate roles.

Because American society is dynamic, the federal role in post-secondary education must continue to evolve. More problems are becoming national rather than local or regional as society becomes more complex and Americans more mobile. Federal involvement will likely continue to increase. In light of the changing nature of the problems, it is important that there be a federal role that is effective without imposing a new level of bureaucracy on the American educational community.

The foundation for a new federal role in post-secondary education exists in the more effective exercise of three responsibilities:

--the responsibility to preserve an open society and the conditions necessary for a free competition of ideas.

--the responsibility to overcome inequities facing specific individuals and groups.

--the responsibility to support research, development, and other "strategic interventions" necessary for effective service which no other level of government can make.

Role #1: Guaranteeing Openness and Competition

The Federal government has historically and for most sectors of society established the ground rules designed to preserve options for individuals and competitive conditions for institutions. Thus, in regulating relations among private economic groups, the Federal government plays the leading role in restraining monopolies which threaten to destroy the competitive conditions of the marketplace. On behalf of minorities and, more recently, women, the Federal government has intervened to begin to lessen discrimination in all facets of our society.

Now, in education, new expectations and changing conditions have given rise to a new set of issues. Financial, legal, and academic barriers continue to restrict the movement of individuals from institution to institution. Many of these, including admissions policies, non-transferability of credits, and lack of articulation, are beyond the pale of legitimate federal regulatory action, though they may be subject to federal incentives. Others, such as tuition requirements for out-of-state students, are matters with which the courts are now struggling to define appropriate roles and responsibilities. But some restrictions, including many of the limitations on where and when students may use federal student assistance, are federally imposed and can and

should be removed forthrightly. In most instances, the direction of movement is toward openness.

In the case of movement from education into productive roles in society, however, things seem to be becoming more restricted. The trend, shaped largely by the roles which self-governing professions and occupations play in establishing certification requirements in various fields, is toward arbitrary increases in the number of years of schooling required for entry into a career. Here, therefore, we believe there is a need for a more vigorous federal role with regard to the activities of accrediting and licensing groups.

As noted in Chapter IV, the conditions under which institutions can compete on the basis of the effectiveness of their educational offerings are also changing rapidly. Two primary trends emerge. First, private institutions are rapidly losing the capacity to compete with the lower-priced public institutions. Second, the new powers of higher education -- the multi-campus systems and the statewide coordinating and governing boards -- are, without necessarily intending it, reducing the degree to which public institutions compete with one another and with private institutions.

The Federal government, we believe, has an important role to play in all of this. It should help, not in supporting private institutions as institutions, but in preserving conditions under which they can compete effectively with public institutions, for the good of the entire educational community. Similarly, in view

of the expanding domain of post-secondary education, the Federal government should be concerned with establishing ground rules for fair competition so that the process of education is not needlessly confined to a single class of institution.

With regard to the development of multi-campus systems, the Federal government faces new and untried issues. In a number of states, the consolidation of public campus control and the competitive pressures on private institutions may soon create a new problem. Is there a danger that they will become higher education monopolies? Should non-profit conglomerates which provide social services be treated differently from profit-making conglomerates providing goods and services in the market economy?

We believe that the Federal government will have an increasingly important role to play as an agency of anti-trust in education.[13] A philosophy of anti-trust need not mean that the Federal government confronts such issues on narrow legal grounds, or that its approach toward state agencies be a negative one based primarily on regulatory remedies. Rather, in its posture toward federal-state relations, we believe the Federal government should assume a new role -- that of creating incentives which will encourage state agencies toward openness, flexibility and competition <u>within</u> their systems.

Too often in establishing procedures for interacting with the states, federal attention has been devoted primarily to organizational tidyness and bureaucratic convenience. The Federal government has attempted to insure that there are state agencies

to administer federal programs, representation from all segments of higher education, a state plan for post-secondary education, and lately "comprehensive" state planning.[14] Little attention has been focused on the impact these decisions have on the educational community, on whether the state planning that has resulted matches federal objectives, or whether it results in more effective education for the student. Attempts to control state action through mandated planning often result in a planning process that becomes primarily a vehicle for capturing a larger amount of federal grants rather than serving as a true measure of educational needs. Programs tend to become uncoupled from the reality of the campus, resulting in such problems as the recent overbuilding of dormitory space.

Yet there are opportunities for federal programs that both aid state agencies and encourage institutional and individual autonomy. For example, it is possible to devise programs which help separate the management role of the multi-campus system from the coordinating and planning role of state coordinating agencies. The latter need real powers to influence institutional behavior without becoming another lawyer of institutional management concerned primarily with the organizational or financial problems of the institutions. Potential federal approaches include funding incentives that encourage a coordinating agency focus on the student's and the state's needs for education, such as:

--matching federal funds for state scholarship and fellowship programs.

--partial federal support for a state fund for project grants to support innovative educational programs in public or private institutions (equal perhaps to 1% of the state's budget for post-secondary education).

We also believe that federal programs that fund students directly should take into account some part of the difference in institutional charges so as to allow students a greater choice, encouraging responsiveness to public need by the individual campus, whether public or private, with less need for central direction.

Role #2: Efforts to Equalize Opportunities

The Federal government has played a major role in equalizing opportunities. Federal student aid has assisted millions of students from low-income families. Federal regulatory efforts have been employed against the discrimination against minorities and women. Programs such as Upward Bound, Talent Search, and Special Services for the Disadvantaged support efforts to recruit educationally disadvantaged students to college and then help them adjust to college environments.[15] Direct institutional assistance, such as the Developing Institutions Program, provides additional resources to institutions serving high proportions of minority students.[16]

Nevertheless, the principal thrust of these programs remains that of a strategy of access supplemented by a strategy for changing the attitudes and skills of the incoming students to increase their chances of survival in the institutions they attend. Even taking into account special programs such as veterans' early

entry, black studies and other cultural awareness programs, or special tutorial and support services, it remains an inescapable fact that the basic forms and processes of post-secondary education have changed little to meet the needs of these new student populations. With a few notable exceptions the students have been expected to adjust to the college rather than the colleges changing in fundamental ways to accommodate to the needs of the student.[17]

While many students will continue to benefit from existing federal policies and programs, the limits of this approach must now be recognized, and more basic, structural innovations undertaken in behalf of new categories of students. For capable but "non-academic" students more concrete, task-oriented modes of learning must replace the passive, abstract style currently institutionalized in most colleges and universities. For students who are talented but not at ease with the dominant culture and the institutions which transmit that culture, as for example many native Americans or inner-city blacks, new institutions must be developed which will turn the students' cultural traditions into an educational advantage.[18] For the many talented women students who are barred from effective opportunities by the time and place requirements of contemporary education, alternative structures and new means of finance must be devised. Thus, we believe there should be a new federal role in supporting a second generation of effort in providing opportunities to American citizens, just as

once, 110 years ago, the Federal government provided the incentives for the creation of the Land Grant colleges to meet the needs of a new student population.

Role #3: Strategic Interventions for Educational Effectiveness

Some tasks are best accomplished nationally, through federal action, because no other level of government has the perspective, capacity, or leverage to perform them.

Information collection, policy analysis, and program evaluation are all tasks which call for increased and much improved federal action. As to information gathering, it is easy to forget that from 1867 to the late 1950's the principal role of the Office of Education was "to collect such statistics and facts as should show the condition and progress of education." Congress strongly reaffirmed that role in the 1972 legislation but at the same time the budget for statistical work was cut without a clear appraisal of the need for adequate information for policy making. We believe that in examining the "condition and progress" of post-secondary education, the range of programs that should be included, the depth of analysis required and the scope of debate needed far surpass the historical and current role of the Office of Education.

In research and development, another traditional federal role, past federal efforts have been slender and not always focused on key problems. Information is needed on almost every pedagogical and management issue -- how do students learn, why and under what conditions; what result does learning have on their future or

society's progress; how are resources used and to what effect -- a lengthy and urgent list. This deficiency has now been recognized and a new initiative has been undertaken with the establishment of the National Institute of Education.[19]

Experimentation and demonstration, as well as funding of new ideas and practices, are also tasks which the Federal government is often uniquely able to perform.[20] National perspectives are often needed in the evaluation of projects; national as against regional or local competition is often required for proposals of high quality; and national incentives are required for investments in many areas. Thus, breakthroughs in effectiveness -- including new measures of assessing student performance -- are tasks which will require, in our judgment, greater federal initiative.

Finally, while not often the direct and explicit purpose of federal programs, the power of the Federal government to attract attention to an issue or to provide a sense of legitimacy for ideas or institutions cannot be overlooked. The public statements of federal officials, the debates of Congress, or the reports of federal commissions create issues for the entire country to consider. Federal operations, such as conferences, consultantships, and other forms of involvement, confer status and rewards so that a federal concern for effectiveness in teaching will help to reinforce growing campus efforts to create a reward system for teaching excellence. Even low-budget federal programs, such as the program for language and area studies, can legitimate, as no

other social force can, the importance of certain issues with a multiplier effect throughout the nation. The Federal government can be a catalyst and a source of leadership for reform and innovation, or it can be a powerful force for negativism and retrenchment.

Guides for Effective Federal Action

On all fronts, not just in post-secondary education, the Federal government has found itself dealing with problems of ever-greater subtlety as the role of government has become more extensive and society has become more complex. Determining the effectiveness of a given federal program is becoming harder and harder. For example, it is more difficult to understand how effective federal aid has been in supporting the evolution of the black college, or what changes have occurred in student life experiences through the University Year for Action, than it was to measure the results of programs of a decade ago aimed at stepping up the construction of new buildings or doubling the annual number of Ph.D.'s graduating in physics. Yet despite this greater complexity, there is a growing demand on all levels of government for evidence that programs are, in fact, producing useful results, that they are not producing undesirable side effects, and that they are doing this at a cost which makes the investment worthwhile.[21] Failure to demonstrate such results quickly can lead to disenchantment and to demands for more regulation, which, in turn, often leads to larger bureaucracies --

a seemingly inexorable and counterproductive cycle.

Both the agencies of the Federal government and the beneficiaries of its programs have important stakes in developing more effective means of evaluating program results. It is simply no longer acceptable for those involved to say either, "Leave it to us, we know what we're doing," or "Education is so complex it can't be measured." The process of education is complex, but it is possible to generate useful measures. Far too often, the goals of a program are not defined realistically and when they are, frequently no attempt is made to measure the results against them.

We do not mean that federal agencies should become mechanistic in their approach to accountability, routinely applying standardized evaluation procedures to each program. In responding to the pressures for measuring results, there should be a healthy skepticism in the application of quantitative analysis to the evaluation process. There is a recurring tendency among those concerned with program evaluation to emphasize those things that can be counted most easily. These measures in turn become normative both for the programs and ultimately for the educational process. Education lends itself poorly to this approach. There is no single "objective" measure of educational success comparable to return on investment as used by the businessman to measure disparate enterprises on a common scale. There is a great need for evaluation of the effectiveness of federal programs in education, but much to learn about how to accomplish it.

What the Federal government has done best in post-secondary education is to establish programs of student aid and programs of competitively awarded grants such as those for university-based research. For effectiveness and equity in such efforts, the most functional and adaptive system of federal involvement requires a plurality of federal agencies and programs. Our national penchant for simplified organizational structure makes the preservation of such pluralism difficult. It seems so sensible to place all research in the National Science Foundation, all student aid in the Office of Education, and so on.

But there is a danger inherent in bureaucratic consolidation. If all research were centralized at the National Science Foundation, one view of priorities for research might well come to dominate, one set of contacts with researchers could become all-important. It might become harder for certain types of new ideas and new researchers to have a fair hearing. It is difficult for any one group to anticipate all of the new avenues to the solution of a problem. Federal roles (and national interests) often conflict with each other. All too frequently the attempt is made to solve all problems with one program. Instead, there is a need for many focused programs, each effective in its own way, the sum of which matches our national requirements. There are unquestionably too many federal programs in too many federal agencies affecting post-secondary education today. In the drive to reduce the overlap, the needed degree of pluralism must be preserved.

When other federal approaches are employed, such as discretionary grants or regulation, care must be taken to limit the expectations aroused in the Congress, the Administration, and the nation at large. Many times the results are far from those intended. When government regulates, for instance, the regulated often gain control of the regulatory process. Regulation is best used sparingly and reserved for those circumstances where no other means to insure goals of equity is available. The federal bureaucracy is a clumsy and blunt instrument for social action, not readily adapted to delicate adjustments in the education community.

Before action is taken, there is a need for the gathering of information, for analysis, and for debate. For the segment of society supposedly devoted to the practice of scholarship, the statistical data on higher education and the related research studies necessary for planning are embarrassingly thin. Some of the most significant federal programs in higher education have been instituted with little or none of the careful analysis necessary to determine what unexpected consequences might result.[22] Too often, the organized higher education community itself has stifled debate, preferring the appearance of unanimity to the benefit of open consideration of alternatives. In many areas of post-secondary education, it helps to try out new programs on an experimental basis before support is provided on a widespread national basis. This is true not only for support of new types of

institutions now seeking federal aid, such as open universities, but also for system-changing programs which can be tried out on a regional or local basis first. And, as federal programs shift from concern with expanding access to support of experimentation and innovation, there must be an expectation within government of occasional failure.

We believe the Federal government is most effective when it uses incentive as opposed to regulatory methods, and specifically that it has been most effective through programs of student aid and programs of competitive research grants. Further, we believe both policy and operational considerations indicate that the Federal government should stay away from general institutional aid or broad attempts at regulation in post-secondary education. If past experience is any guide, either is likely to generate a chain of events capable of inflicting major damage on the educational community.

Agenda for Reform

We believe there must be a new concern on the part of the Federal government for the effectiveness of American post-secondary education. Throughout this report, we have tried to describe what that can mean in educational terms. In summary, we believe that greater effectiveness in post-secondary education requires moving toward the following:

--More conscious and deliberate choices by young people as to whether to go to college, when to go, and what kind of

institution or program to attend -- aided by the widespread availability of information about the nature of programs and institutions.

--Greater opportunity for individuals to return on a recurrent basis to a full range of educational programs.

--More focused and more responsive institutions, each of which has a clear purpose and mission -- all of which compete for students and resources on the basis of the effectiveness of their educational programs.

--A deepening of the effort to translate into educational reality the social commitment that higher education in all its facets is to be available to and effective for all segments of the population -- specifically minorities, women, students beyond the traditional college age and students of limited income.

--Increased recognition of and legitimacy for the role proprietary, industrial, cultural and community organizations can play in providing post-secondary education.

--More resources for new educational enterprises and more flexible accrediting so that those with promise will have an opportunity to prove themselves -- and more emphasis on the flow of public resources on a competitive basis so that ineffective institutions, public or private, may face the eventuality of demise.

--More serious effort to improve the effectiveness of every type of program from liberal arts to vocational training through the clarification of institutional objectives, the development of realistic means to assess achievement of objectives, and better ways to relate the resources used to the objectives attained.

--A more open system of education and only such restrictions on the entry to careers based on educational credentials as are needed to ensure the protection of society.

We believe the Federal government should play a conscious role in helping to achieve these educational objectives. The approach it takes in doing this is critical. Throughout the report, and often in greater detail in the various position papers of the Task Force, we have proposed specific federal policies, programs and

actions. While each proposal deserves its own careful analysis and detailed description, in summary we propose that the Federal government should consider the following recommendations:

--In allocating future increases of support to post-secondary education, the Federal government should choose forms of assistance which maximize the incentives for institutions to compete for students, and minimize the risks of deliberate or inadvertent federal intrusion into institutional operations. To the extent appropriate in each program, the question "who gets what?" should be determined by student choice rather than legislative formulas or administrative decisions; therefore we recommend that, wherever feasible, federal support for post-secondary education flow to students rather than to institutions.

--We believe that greater exposure of students to the productive activities of society outside schooling would help make college opportunities more valued and increase the ability of students to profit from the classroom experience. Accordingly, we recommend that the Federal government place increasing emphasis on work-study and internship forms of student aid funding, and undertake new efforts to upgrade the jobs in these programs into significant productive experiences. Specifically, we recommend that 20% of work-study funds be allocated on an incentive basis to institutions willing to upgrade the work component into a significant learning experience.

We further recommend new federal legislation, a "G.I. Bill for Community Service," designed to legitimate breaking the educational lockstep for a period of service in selected national, regional, or local community programs. The benefits, like those of the G.I. Bill, would accrue during the period of service and could be used later whenever the volunteer chose to enroll at a post-secondary educational institution. This program would supplement existing federal student assistance, and extend the concept of service, in addition to need and academic ability, as a legitimate basis for the award of federal student aid.

--The issue in graduate education today is not growth, but reform; not the shortage of needed manpower in various fields, but the need for improved training in certain fields. The problems of the 1970's include the under-representation of minorities, the growth of new programs in institutions reaching for "university status" while

institutions of acknowledged excellence decline in enrollments, and the lack of innovation and responsiveness throughout graduate education to major social needs. Federal concern, therefore, should shift from the quantity of manpower in various fields to the kind and quality of this manpower.

The interest of students in entering fields of greatest career opportunity, in attending programs of high quality, and in preparing themselves to meet real social needs is substantially congruent with the national interest in reform. Accordingly, we recommend that basic federal support for graduate education shift from fellowship and traineeship funds provided to institutions to portable fellowships, allocated directly to students, together with companion grants to those institutions which students choose to attend. We also propose that graduate fellowship recipients be selected on broader criteria than grades and tests, criteria which will be indicative of the contribution the student will make to society after graduation. We further propose the use of project grants to assist in the development of more effective graduate programs in social service fields and new areas of concern.

--For all students and all types of institutions, there is a need to know if the educational process is effective. In addition, the key to overcoming many of the obstacles to equity, social mobility, and cost effectiveness in post-secondary education lies in the standards and processes by which institutions assess individual progress and award credentials. Present testing and grading methods fail to identify talent beyond the purely academic, and predict mainly how well a student will perform at the next level of schooling -- not his performance or contribution to society after graduation. Since the institutionalization of the credit hour as the basic unit of education, the processes of assessment and credentialing have been related more to time than performance. To meet new needs for equity and excellence, we recommend: (1) long-term support for the development of ways, going beyond paper-and-pencil examinations, to evaluate mastery of proficiencies needed for success in various fields of endeavor, and (2) support for start-up costs for the establishment of examining agencies capable of awarding credentials on the basis of proficiencies individuals have achieved, regardless of how or where these proficiencies were acquired.

--Increasing public and governmental pressure for performance and accountability in higher education has produced some

new concern for efficiency in recent years, but has not arrested rising educational costs. Now, colleges and universities face the unpleasant spectre of imposed management controls, such as uniform cost-accounting procedures, which symbolize efficiency but bear little relationship to real increases in educational effectiveness. On the contrary, if such controls introduce rigidities into institutional resource allocation, they can easily impede progress toward increased educational effectiveness.

This situation as come about, in part, because of the reluctance of faculty and administrators to recognize its urgency, but also because there is little helpful research on cost effectiveness in higher education. Economists have tended to focus on cost factors, assuming that degrees awarded or incomes after degrees measure the results of education. Psychologists, sociologists and others interested in personal development have only recently begun to compare the effects of alternative structures and environments on student learning, but rarely in terms of the resources utilized. Therefore, we recommend that the federal agencies engaged in research and demonstration grant funding such as the National Institute of Education undertake experimental, inter-disciplinary research in cost effectiveness as one of its major higher education initiatives.

--Standards of training and competency in many occupations are essential for consumer protection. All too often, however, such standards become the means for limiting entry to careers. To remove unjust and articifial barriers to entering careers, and to the pursuit of recurrent patterns of education and work, we recommend that the Federal government adopt a more vigilant anti-trust posture relative to the activities of the organized professions. As first steps toward a new federal policy, we recommend: (1) a clarification of federal law and regulatory responsibility as between the Department of Justice, the Federal Trade Commission and the mission-oriented domestic agencies relative to the activities of non-profit professional groups, and (2) a thorough investigation, by responsible federal agencies, of (a) requirements for graduation from professionally-accredited institutions as a prerequisite for admission to certifying and licensing examinations, and (b) examination requirements unrelated to the proficiencies needed to protect consumers and successfully practice one's profession.

--In many programs, the Federal government has delegated its responsibility for determining eligibility of institutions for federal funds to accrediting agencies,

which render judgments on the basis of interests and standards which often differ from those appropriate to the national interest. In order to adopt a more neutral and equitable national posture regarding the range and type of institutions and programs capable of providing post-secondary education, and in order to clarify the roles and interests of all parties engaged in evaluating institutions -- including the academic professions, regional collections of academic institutions, the states, and the Federal government -- we recommend that the process of determining eligibility for federal funds be clearly distinguished and separated from the process by which accrediting agencies judge institutional performance. To this end, we propose a national procedure for determining eligibility based primarily on an institutional disclosure statement that provides more useful information for the potential student and the general public and an administrative judgment that an institution has the capacity to perform its stated mission. There still remains the important traditional role of the accrediting agencies in assisting institutions to determine how well they are performing their missions. To help develop new skills in this area, we recommend federal support for research and development of performance criteria and new assessment techniques.

--To develop the data and analysis needed for informed policy-making, we recommend creating a new statistical agency and an upgraded analysis and data collection policy for the Education Division of the Department of Health, Education and Welfare. Collection of information was the first role assigned to the Office of Education, but today the resources, capabilities and the support for this task fall far short of comparable federal efforts to generate information for policy-making in economic policy, employment or science. The new statistical agency, designed to establish a new leadership role of the Federal government in the collection of educational data, should integrate the policy analysis and data collection functions, now performed by separate units. A revised data collection policy should include an expansion of the universe of educating agencies on which data is collected and a greatly increased emphasis on longitudinal studies of the effect of different educational environments on students.

--In the last two decades, the Federal government has spent billions of dollars on efforts to bring educational technology into useful service. Unfortunately, the vast majority of projects has failed to produce lasting

applications, despite the generally accepted belief that communications technology should be capable of providing workable solutions to many of the problems that beset education. We believe the reasons for this failure can be traced to an inadequate understanding of the conditions necessary for the successful application of technology to education; and we propose a set of standards which we believe federal agencies would be wise to use in assessing future projects that envision the use of technology for educational purposes. The guidelines are: (1) educational programs must be planned for specific target audiences; (2) educational objectives that are relevant to the needs and interests of a target audience must be clearly understood and agreed upon; (3) a systematic multi-media approach must be used in which both knowledge and media specialists are employed in the production of materials; (4) persons who are capable of learning to use the instructional characteristics of various media must be available or be trained to staff the effort; (5) clear and careful provisions for significant personal interaction (both student-student and student-faculty) must be made; and (6) evaluation and feedback arrangements must be used to monitor audience reactions and to change the instructional materials to suit learner needs. Where these standards have been met in the past, projects have been substantially more likely to succeed.

--Federal incentives and funding have played a major role in the opening of post-secondary education to minority students. Substantial problems remain, however, and there are indicators that the public commitment is waning. We believe that this country should recommit itself to educational opportunity for minorities. Specifically we believe the Federal government should: (1) develop a program of national fellowships at the graduate level with criteria for selection that will aid, among others, many of the talented minority students now completing their undergraduate training; and (2) continue the support for black and other ethnic colleges which play a critical role far beyond the numbers they educate, but insure that this funding is focused as an incentive toward helping these institutions achieve a viable and competitive role in post-secondary education without the need for permanent federal support.

--Three types of barriers continue to block women from full participation in higher education and the life of society: overt discrimination by admissions officers, employers, and others; institutional barriers, such as rigid residency

requirements or inflexible personnel policies; and ingrained assumptions about the role of women in society. In recent years, the Federal government has employed its regulatory powers toward ending overt discrimination. We believe it should continue to do so until such discrimination is eliminated. But continued progress will necessitate greater reliance on financial assistance programs (e.g. work-study, cooperative education, graduate fellowships, and internships) which can open access to new careers and professions, and incentive grant programs which can overcome institutional rigidities which discourage participation.

Finally, the Federal government has various impacts on the role conceptions of men and women. Its significance as an exemplary employer is widely recognized. Less recognized, but also important, is its role as an investor in training, education, and service programs which help establish the values and attitudes society considers important. For example, if programs in professional education and the social services were to recognize the importance of affective values and attitudes, these services would improve. Since there is a widespread association of women with many of these values, the role of women would also be held in higher esteem. We recommend, therefore, that the Federal government review existing programs of support for training and professional education to consider whether they really prepare individual professionals who are simultaneously skilled, effective, and oriented to the service of others.

--There is widespread agreement that the encouragement of recurrent patterns of education should become a new national priority. Yet few agree on what strategies should be employed to finance access to post-secondary education on a life-long basis. Many employers have some provision for financing recurrent opportunities for their employees. The Social Security system, pension funds, unemployment compensation, federal student assistance programs, and new concepts such as the creation of an educational trust fund have all been put forward in recent years, each with a different set of training, educational, and "quality of life" purposes in mind, and each affecting different constituencies. Accordingly, we recommend that the Secretary of Health, Education, and Welfare commission a comprehensive analysis of these financing strategies, develop a forum for the public discussion of the competing priorities and diverse interests involved, and develop an effective program of financing of students during recurrent periods of education.

--We recommend that the Federal government initiate a new policy of encouraging states to develop strategies for accountability which rely more on competitive forces and incentive approaches rather than on direct and detailed management of institutions from the level of state systems or statewide agencies. We propose that where both state multi-campus systems and statewide coordinating agencies exist, federal policy distinguish clearly between the two. Specifically, we propose three initiatives: (1) federal matching grants to states which undertake student aid programs which provide funds directly to the student, assisting the student to attend any post-secondary institution of his choice to which he can gain admission; (2) federal support on a matching basis for state competitive grant foundations, equal to perhaps 1% of the state's annual budget for post-secondary education, designed to provide incentives to institutions and faculties for program development and innovative approaches along lines determined to be in the state interest; (3) federal project grants to states for planning and demonstrations of different governance structures and accountability procedures, including experiments in budgeting and institutional evaluation. Rather than simply funding the establishment of uniformly constituted 1202 Commissions, we recommend selective, demonstration-grant funding for different approaches to the state planning role.

--The existence of public and private institutions, competing for students on the basis of the effectiveness of their educational programs, improves the whole of post-secondary education. To preserve the conditions necessary for this competition to continue, the Federal government should give priority to strategies of post-secondary finance, particularly revision of its programs of student aid, which would narrow the tuition differential between public and private institutions without compromising the autonomy or independence of either. The vitality of both public and private campuses, their ability to differentiate themselves and the possibilities for creation of new educational enterprises are importantly affected by funds from private donors and foundations. In the re-examination of federal tax policies care should be taken to enhance this flow of funds and encourage a broader participation of the public in educational philanthropy.

--Since World War II, federal support has created a vast reward system of resources, legitimacy, visibility, and prestige for institutions and faculties engaged in academic

research. We recommend that the Federal government now consciously address itself to the creation of comparable incentives and rewards for those concerned with teaching and learning and with the establishment of new educational enterprises. Existing agencies such as the National Science Foundation or the National Endowment for the Humanities should be sources for the expansion of the federal in this area, as should the activities of two new agencies, the National Institute for Education and the Fund for the Improvement of Post-Secondary Education.

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Throughout this report the Task Force has made plain its belief that it is to the country's advantage to encourage a more open system of post-secondary education that emphasizes diversity among institutions and competition for both students and resources. We are aware that there are many voices favoring more centralized administration, arguing that such is needed for coordination and the elimination of duplication. We have favored openness and competition because we believe it leads to both a more effective and more efficient system.

But we have favored it as well for even more fundamental reasons. High value should be placed on the freedom of the student to seek a path to an education of his own choosing. Likewise, high value should be placed on the right of an institution to succeed -- or fail -- on the merit of its own decisions. In light of the importance of post-secondary education to a free society, the danger of impairment to these freedoms, no matter how inadvertent or well-intentioned, is a cause for constant concern and thoughtful debate.

FOOTNOTES

I. THE IMPLICATIONS OF THE EGALITARIAN COMMITMENT

1. The analysis of "aristocratic," "meritocratic" and "egalitarian" eras of higher education has been used by K. Patricia Cross in Beyond the Open Door, Jossey-Bass, San Francisco, 1971, Chapter 1, and by Harold L. Hodgkinson in "Goal-Setting and Evaluation," Address to the National Foundation on New Planning and Management Practices in Higher Education, Denver Colo., Jan. 26, 1972. For a history of the aristocratic phase, see Laurence R. Veysey, The Emergence of the American University, University of Chicago Press, Chicago, 1965. Christopher Jencks and David Riesman offer a comprehensive treatment of the development of American higher education in The Academic Revolution, Doubleday & Co., New York, 1968. For an analysis of recent trends in the growth and role-redefinition of higher education in an international context, see Martin Trow, "Problems in the Transition from Elite to Mass Education," draft, Berkeley, 1972.

2. Colleges were established by many religious groups, by wealthy donors like the Stanfords, and by municipalities as well (e.g. the University of Cincinnati). Moreoever, unlike European higher education, there was the possibility of access for the exceptional student of high ability and motivation who was prepared to work his way through. It is doubtful that Herbert Hoover, LaFollette, or Booker T. Washington would have been well-received at Oxford or Hamburg. In general, however, even the very gifted, unless they were of privileged background, had little hope of higher education in America until well into this century.

3. The federal land grants to states for religious and educational purposes, dating from 1787, were especially significant for the development of state universities in the West and Middle West. For a brief history of these early forms of federal support to higher education, see Alice Rivlin, The Federal Role in Higher Education, The Brookings Institution, Washington, D.C., 1961, pp. 9-23. The City University of New York was founded in 1847.

4. We arrived at this figure by calculations based on figures from various sources. Most estimates of this sort determine the ratio of students enrolled in a given year to a particular age cohort (e.g., 18-21). However, since enrollment figures include graduate and older students, and exclude those who have entered but dropped out, such estimates do not reflect

the particular issue of concern here, namely, what share of the age cohort enters college at a given time. To correct the enrollment figures for our purposes, we estimated the percentage of older students and dropouts. A second type of estimate is arrived at by multiplying the percentage of high school graduates by the percentage of high school graduates who go on to college. By a combination of these methods, recognizing their limitations, we estimate that in 1940, 10% of the age group entered college; in 1950 about 18%; and in 1970 well over 50%. See "Projections of School and College Enrollment," Current Population Reports, Census B, P25, January 1972, No. 473, Table 2, and the Digest of Educational Statistics, 1970 ed., U.S. Department of Health, Education, and Welfare, U.S. Office of Education, Washington, D.C., 1970.

5. Jencks and Riesman note "extremely high drop-out rates" as a result of faculty efforts to "weed out the misfits" in later stages of the aristocratic period (The Academic Revolution, op. cit., p. 280).

6. See footnote 1, above, for a discussion of these periods of American higher education. See also David Riesman, "Education at Harvard," Change, Sept. 1973, in which he chronicles the rise of meritocratic values at an elitist institution. Riesman correlates meritocratic screening of students with the arrival of James Conant as President in 1933. A similar trend had been apparent in the Harvard law school early in the century, and had already characterized faculty selection during the latter third of the nineteenth century. However, for most institutions, meritocratic selectivity of students began only after World War II with the influx of returning veterans under the G.I. Bill. Further discussion of this phenomenon is to be found in Jencks and Riesman, op. cit., pp. 279-286.

7. Dael Wolfle, America's Resources of Specialized Talent, Report of the Commission of Human Resources and Advanced Training, Harper and Row, New York, 1954, p. 6.

8. Daniel P. Moynihan, "The Impact on Manpower Development and the Employment of Youth," in Universal Higher Education, Earl J. McGrath, ed., McGraw-Hill, New York, 1966, p. 66.

9. Studies of the socio-economic and racial backgrounds of students indicate that considerable reinforcement of social sorting still occurs by the selectivity of the institutions. See the data in Chapter II of this paper and in footnote 6 of Chapter II.

   In addition, there remain considerable inequities in

participation rates by state. For example, as compared to a national average of 41 undergraduates for every 100 18-29 year-olds, Utah, Wyoming, California, Connecticut, Idaho, and New York all enroll over 50 students per 100, whereas Alaska, Maine, Nevada, South Carolina, Georgia, North Carolina and Virginia all enroll less than 30 per 100. To some extend this is a function of per capita state expenditures, which vary by a factor of five between Wyoming, which has the largest,and New Jersey, which has the lowest. See The Capitol and the Campus: State Responsibility for Post-Secondary Education, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971, pp. 39-56. See also New Students, New Places, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971.

10. The Capitol and the Campus, op. cit., p. 43.

11. There are 2,866,000 students today in 1,141 institutions ("A Kind of Higher Education," New York Times Magazine, May 27, 1973, pp. 12-13). The California community college system alone accounts for almost 800,000 students on 94 campuses (figures from Arthur Cohen, director of the ERIC Clearinghouse on Community Colleges, Los Angeles).

12. The New York Times, May 20, 1973, states that minority enrollment has increased from 434,000 in 1968 to 727,000 in 1972.

13. A small but significant number of new colleges for minorities have been established; examples are: DQU (Universidad Deganawidah Quetzcoatl) in California, Navajo College and Navajo Tribal Community College in Arizona, Malcolm X in Chicago, Nairobi in East Palo Alto, California, Malcolm King in Harlem, and Third College at San Diego. Other colleges have taken on an ethnic emphasis because of their location in urban environments, such as Laguardia or the College for Human Services in New York or Federal City College in Washington. Others, like Old Westbury II, have redefined their mission to include an emphasis on minorities. Still others, like Alice LLoyd in Kentucky and the Arizona Jobs College, serve regionally-defined disadvantaged groups.

14. Open access at the City University of New York did not mean access to any campus or any program for any student; rather, it meant that any student has access to some campus within the system. However, the intensity of the debate reflected the conflict inherent between egalitarian and meritocratic policy in admissions. Evidence about the success of the program is mixed. Martin Mayer gives a

sobering account of the programs at a number of schools in the CUNY system, noting that over 50% of the open admissions students had left of their own will by 1972 and that "a considerable majority of the survivors are doing badly" ("Higher Education for All?" Commentary, Feb. 1973, pp. 37-47). More optimistic results are reported by Timothy Healy, Edward Quinn, Alexander Astin and Jack Rossman in "The Case for Open Admissions," Change, Summer 1973, pp. 24-37. For further discussion see Ken Libow and Ed Stuart, "Open Admissions: An Open and Shut Case?" Saturday Review, December 9, 1972, p. 54.

15. Several such universities without a physical campus have been established, such as Minnesota Metropolitan in St. Paul, Empire State in New York, Governor's State College in Illinois, the University Without Walls, Union Graduate School (of the Union for Experimenting Colleges and Universities), and a longstanding program at the State University of Nebraska. Others, such as the St. Louis University Metropolitan College, are planned.

16. An egalitarian thrust on the part of the Federal government was apparent in the 1965 Higher Education Amendments' Educational Opportunity Grants, and also in the College Work-Study Program, originally part of the Economic Opportunity Act of 1964. However, federal support of qualified students on the basis of need alone had been preceded by the College Scholarship Service in 1955. The National Merit Scholars, a public but not a federal program, selects students on the basis of achievement, but gives financial aid according to need.

17. The Basic Educational Opportunity Grant Program, which was authorized in the 1972 Education Amendments, can be interpreted as a significant added commitment to students from low-income families. It should be noted that in order to qualify for this program, students must be admitted to an approved institution of post-secondary education. For a discussion of the implications of this legislation, see Harry Hogan, "The BEOG Revolution," Change, Summer 1973, p. 64. See also Robert Hartman, "The Nixon Budget," Change, April 1973.

18. It is estimated that in 1966-1967, over 70% of students entering two-year colleges planned at least a bachelor's degree (18% planned an associate degree, 9% no degree) (Alan Bayer, David Drew, Alexander Astin, Robert Boruch, and John Creager, The First Year of College: A Follow-Up Normative Report, Research Report, American Council on

Education, Vol. 5, No. 1, Washington, D.C., 1970, p. 26). However, even the most favorable evidence (relying on the self-reporting of students) suggests that less than 40% achieve an A.A. within 4 years after college entry (Alexander Astin, The College Dropout: A National Profile, Research Report, American Council on Education, Vol. 7, No. 1, Washington, D.C., 1972, p. 10). Data on rates of transfer to 4-year institutions are skimpy, but Warren Willingham concludes from the few studies available (from Florida, California, and Illinois) that between 15 and 30% of students entering community colleges in different states transfer to a senior institution (The No. 2 Access Problem: Transfer to the Upper Division, ERIC Research Report No. 4, American Association for Higher Education, Washington, D.C., 1972, pp. 30-31).

19. Evolving definitions of "equality of opportunity" provide an interesting barometer of the rise of egalitarian thought. Variations on the most extreme formulation of this educational philosophy include: recent recommendations by the Panel on Financing Low Income and Minority Students in Higher Education that complete equity of results be achieved for all racial and income groups in rates and patterns of enrollment and attrition and in distribution of students among types of institutions (Toward Equal Opportunity for Higher Education, College Entrance Examination Board, Princeton, N.J., 1973, pp. 6-9); suggestions that random admissions be instituted in order to distribute fairly the benefits of attendance at selective institutions (see for example Laurence DeWitt, "A Lottery System for Higher Education," Notes on the Future of Education, Educational Policy Center at Syracuse, Summer 1971, and frequent public statements by Alexander Astin during his period as director of research of the American Council on Education); and proposals to bypass the schools as arbiters of status and income by directly equalizing incomes (Christopher Jencks, et al., Inequality: A Reassessment of the Effect of Family and Schooling in America, Basic Books, New York, 1972). For a firm philosophical base for an egalitarian philosophy, see John Rawls, Theory of Justice, Harvard University Press, Cambridge, Mass., 1971. For criticism of the "equality of results" school of education philosophy, and of Rawls, see Charles Frankel, "The New Egalitarianism and the Old," Commentary, Sept. 1973.

20. The availability of federally insured student loans for students in proprietary schools in 1969 has also contributed to their acceptance, as has their eligibility under the Basic Educational Opportunity Grants Program. A further

argument for acknowledging the legitimacy of these institutions is their effectiveness, which often exceeds that of community colleges in training for specific jobs. For this view, see Wellford Wilms, "A New Look at Proprietary Schools," Change, Summer 1973.

21. Estimates of enrollment in proprietary schools vary considerably, and depend on definition. For example, an unpublished study by Ted Youn for the Commission on the Financing of Post-Secondary Education suggests that there are now about 1.6 million students in 10,540 "career, non-collegiate" institutions. According to A. H. Belitsky, there were 7,071 such schools enrolling 1,564,000 students in 1966 (Private Vocational Schools and their Students: Unlimited Opportunities, Schenkman Publishing Co., Cambridge, Mass., 1969). However, much larger estimates are given by Harold F. Clark and Harold S. Sloan, who find over 5 million students in 35,000 "vocational and leisure-time" schools (Classrooms on Mainstreet, Teacher's College Press, Columbia University, New York, 1964), and by Stanley Moses, who estimates 9.6 million students in proprietary schools in 1970 (The Learning Force: A More Comprehensive Framework for Educational Policy, Syracuse University, Syracuse, N.Y., 1971).

22. For descriptions of some of these programs and other examples, see Samuel Gould and K. Patricia Cross, eds., Explorations in Non-Traditional Study, Jossey-Bass, San Francisco, 1972, and Ann Heiss, An Inventory of Academic Innovation and Reform, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1972. See also the section on "Diversity" in Chapter III, below.

23. As noted with respect to enrollments in proprietary institutions, estimates of the size and definition of the legitimate constituency of post-secondary education range considerably. Stanley Moses, op. cit., by including audiences of some educational TV, gives an estimate of 68 million students. In such a field, however, it is difficult to draw the line between adult education and entertainment; should, for instance, regular viewers of the Forsyte Saga be counted as students?

    For descriptions of some of the programs cited, see "Rand Corp. Initiates Its Own PhD Program," Los Angeles Times, Feb 5, 1973; "Firm [Arthur D. Little, Inc.] to Grant Academic Degrees," San Francisco Chronicle, April 26, 1973; "40 Million Newspaper Readers to Get Option to Study College Course in an Educational Experiment," New York Times,

Sept. 9, 1973 (enthusiastic response to the first newspaper course has generated plans for a second next year, Higher Education Daily, Oct. 1, 1973, p. 4). Other examples are described in Warren Willingham, The Source Book for Higher Education, College Entrance Examination Board, New York, 1973, pp. 384-385. It is striking to note in this context that "the Department of Defense is said to spend more on education beyond high school than all the state legislatures in the country combined, and General Electric spends more than any but the largest universities" (Jencks and Riesman, op. cit., p. 506).

24. See the forthcoming Task Force Paper on accreditation and institutional eligibility.

25. See the Task Force Paper, Report on Higher Education: The Federal Role: Data and Decision-Making in Higher Education, Office of Education, Department of Health, Education, and Welfare, Washington, D.C., 1973, for recommendations concerning federal data collection.

26. For an overview of this dilemma, see John Gardner, Excellence, Harper and Row, New York, 1961. Some proponents of egalitarianism acknowledge the conflict between standards and equality of opportunity and argue that if a choice must be made, the latter is more important. See, for example, Jerome Karabel, "Open Admissions: Toward Meritocracy or Democracy?" Change, May 1972.

27. The late Paul Goodman was long a critic of these symptoms of the bureaucratization of education (see Compulsory Mis-Education, Horizon Press, New York, 1964, and Growing Up Absurd, Random House, New York, 1960). Ivan D. Illich argues from a similar perspective that the only remedy is to decentralize schools (Deschooling Society, Harrow Books, New York, 1970). Criticism aiming to conserve but revitalize current institutions of higher education is offered by Nevitt Sanford in Where Colleges Fail, Jossey-Bass, San Francisco, 1967.

28. This perspective is now shared by many administrators of higher education. For example, William Birenbaum, president of Staten Island Community College, has said:

> "The credit-hour time-grid must be broken. But this requires a different view of the organization of knowledge and the ways that humans may be exposed to it. At the college level there is nothing magic about two years or four years, except the magic of institutional habit. Prior individual life-experience counts for a lot." ("Something for Everybody is not Enough," Speech at St. Louis ACE meeting, October 1970).

For an argument against any form of degrees, see David Hapgood, "Degrees: The Case for Abolition," The Washington Monthly, August 1969, pp. 6-13.

29. See Kenneth Roose and Charles Andersen, A Rating of Graduate Programs, American Council on Education, Washington, D.C., 1970, pp. 42-43, and David W. Breneman, An Economic Theory of Ph.D. Production: The Case at Berkeley, Office of the Vice-President -- Planning and Analysis, University of California, Berkeley, 1970. The "effectiveness of doctoral program" ratings do not seem to reflect perceptions of anything other than "quality of graduate faculty." In the 1964 survey, scores on both correlated so highly that serious consideration was given to eliminating the "effectiveness" question (Roose and Andersen, op. cit., p. 19).

30. Laurence B. DeWitt, in his article "A Lottery System for Higher Education," points out that the terms "standards" and "quality" as they relate to higher education usually refer to the inputs to the process, that is, to the students themselves. He notes that there is currently no satisfactory way to evaluate what an institution adds to a student's learning or development during his attendance, or what types of institutions are most beneficial to what types of student. For further discussion of the question of "value added," see Alexander Astin, "The Measured Effects of Higher Education," Annals of the American Academy of Political and Social Science, Nov. 1972; Astin, "Undergraduate Achievement and Institutional 'Excellence'," Science, Vol. 161, August 1968; Robert Berls, "An Exploration of the Determinants of Effectiveness in Higher Education," The Economics and Financing of Higher Education in the United States, Joint Economic Committee, Congress of the United States, U.S. Government Printing Office, Washington, D.C., 1969; Arthur Chickering, "The Best Colleges Have the Least Effect," Saturday Review, January 16, 1971; Chickering, Education and Identity, Jossey-Bass, San Francisco, 1972; K. Patricia Cross, "The New Learners," Change, February 1973; Kenneth Feldman and Theodore Newcomb, The Impact of College on Students, Jossey-Bass, San Francisco, 1969; and Harold Hodgkinson, "How Can We Measure the 'Value Added' to Students by College?" Chronicle of Higher Education, Nov. 13, 1972. The growing concern with the concept of "value added" is reflected in the recommendations of a recent report of the Carnegie Commission on Higher Education, Continuities and Discontinuities: Higher Education and the Schools, McGraw-Hill, New York, 1973.

31. The identification of teachers with their discipline and its perpetuation rather than with the role of educator of students has been increasingly noted. See, for example, Jencks and Riesman, The Academic Revolution, op. cit., pp. 20-28, 492-504, 531-539, and Nevitt Sanford, "New Values and Faculty Response," Prospects for Renewal, Earl J. McGrath, ed., Jossey-Bass, San Francisco, 1972, pp. 30-49.

32. For a history of this trend, see Michael Schudson, "Organizing the 'Meritocracy': A History of the College Entrance Examining Board," Harvard Educational Review, Vol. 42, No. 1, Feb. 1972, in which the following table appears:

1) Number of College Members of College Board
2) Number of High School Seniors Examined by the College Board for College Entrance

	Member Colleges	High School Seniors Examined College Board	
1901	15	973	
1905	27	2,077	
1910	29	3,731	
1915	31	4,941	
1920	33	15,266	
1925	35	19,775	
1930	40	11,470	
1935	39	9,083	
1940	44	17,377	
1945	50	25,680	
		--by College Board	--by A.C.T.
1950	114	63,352	----
1955	167	85,790	----
1960	428	400,000	132,963
1965	579	850,000	705,089
1970	850	1,000,000	992,724

33. See David Riesman, "Education at Harvard," Change, Sept. 1972, and Riesman and Jencks, The Academic Revolution, op. cit., pp. 279-386, for perspective on this trend.

34. Early resistance to standardized testing, exemplified by Walter Lippmann and John Dewey, is recorded in Schudson, "Organizing the 'Meritocracy,'" op. cit., p. 51ff.

35. It has been firmly established that grades and tests (e.g. ACT, SAT) are highly correlated with one another, and with future academic performance -- not a surprising result, since both reflect a person's disposition toward and prior success with classroom skills. See, for instance, W.B. Schrader, "The Predictive Validity of College Board Admission Tests," in William Angoff, ed., The College Board Admissions Testing Program, College Entrance Examination Board, New York, 1971, pp. 117-145; James Richards, Jr. and Sandra Lutz, Predicting Student Success in College from the ACT Assessment, ACT Research Report #21, August 1967; and James Richards, Jr., John Holland, and Sandra Lutz, The Prediction of Student Accomplishment in College, ACT Research Report #13, June 1966. K. Patricia Cross also notes this in "The New Learners", Change, Feb. 1973. Insofar as grades affect admission to and graduation from college, they play an important role in distributing privilege. However, the importance of grades in getting the first job seems to vary. One survey, which asked 270 companies in 1972 to rank five factors in the order of their importance in hiring (personality, grade-point average, "self-financing" through college, extra-curricular activities, and marital status) found that personality and grades were consistently the most important with personality scoring somewhat higher. For more technical jobs, grades were the preferred factor (Claude Shell and Floyd Patrick, "Grades Continue to be Stressed by Recruiters," Journal of College Placement, Feb.-Mar. 1973, pp. 77-82). Another study, which surveyed 1971 graduates from the University of Colorado instead of employers, found no significant differences between the grade point averages of employed and unemployed graduates. Campus leadership was likewise uncorrelated to employment (Joy Rossen, James Schoemer, and Patricia Nash, "Grades and Extra-Curricular Activities," Journal of College Placement, Feb.-Mar. 1973, pp. 73-76). Our own informal survey of personnel directors of large San Francisco Bay area firms found that employers seldom claim to place more than marginal emphasis on grades. See also footnote 39, below.

36. Some institutions and a larger number of small programs within institutions do employ additional mechanisms for evaluation, such as senior theses, oral examinations, independent research projects, etc. And both the elimination of failing grades and the use of pass/fail and credit/no-credit courses is increasing (see "Question Marks on Marks," New York Times, Nov. 26, 1972). However, experiments with techniques such as self-evaluation and peer review (as at

Common College, Woodside, California), written "profile" evaluation (as nas been tried at the University of California at Santa Cruz), and "contracting" to undertake a certain amount of learning (as at Evergreen State in Washington, New College at Sarasota, Ottawa in Kansas, Empire State in New York, Minnesota Metro in St. Paul, and Johnston College in Redlands, California) are still rare.

37. For summaries of many studies of student-faculty interaction at various institutions, see Kenneth Feldman and Theodore Newcomb, The Impact of College on Students, Vol. II, Jossey-Bass, San Francisco, 1970, Tables 8c and 8d, pp. 161-162.

38. One can argue that current standardized measures of evaluation shape what is to be taught, and select out those students who most readily accept the current structure of society and its tasks. There is evidence that more creative students are more likely to drop out (see Paul Heist, ed., The Creative College Student: An Unmet Challenge, Jossey-Bass, San Francisco, 1968).

39. Donald P. Hoyt, The Relationship Between College Grades and Adult Achievement: A Review of the Literature, American College Testing Service Research Report #7, 1965, p. i. Ivar Berg has shown that for some jobs (factory worker, bank teller, air traffic controller), neither grades nor amount of education are predictive of vocational achievement (Education and Jobs: The Great Training Robbery, Praeger, New York, 1970). David McClelland ("Testing for Competence Rather than Intelligence," American Psychologist, January 1973) discusses a number of studies which show slight relationship if best between grades or aptitude tests and measures of occupational success. These include: R. Thorndike and E. Hagen, 10,000 Careers, Wiley, New York, 1959; L. Hudson, "Degree Class and Attainment in Scientific Research," British Journal of Psychology, Vol. 51, 1960; and C. Taylor, W.R. Smith and B. Ghiselin, "The Creative and Other Contributors of One Sample of Research Scientists," in C.W. Taylor and F. Barron, eds., Scientific Creativity: Its Recognition and Development, Wiley, New York, 1963. It has been found as well that non-academic achievement in college is relatively independent of grades (James Richards, Jr., John Holland, and Sandra Lutz, The Assessment of Student Accomplishment in College, op. cit.), and that non-intellectual criteria for success in college can be predicted (Anne Anastasi, Martin J. Meade, and Alexander Schneiders, The Validation of a Biographical Inventory as a Predictor of College Success,

Research Monograph No. 1, College Entrance Examination Board, New York, 1960).

For evidence that grades do correlate with later success, see Paul Burnham and Albert Crawford, Forecasting College Achievement, Yale University Press, New Haven, 1946. Also, evidence has been found for substantial correlation between grades and the prestige of the occupation held seven years after graduation (Joe Spaeth and Andrew Greeley, Recent Alumni and Higher Education, McGraw-Hill, New York, 1970, p. 167). (However, it is possible that when grades or tests do correlate with subsequent success, this may be an artefact because of their association with class status and behavior.)

40. In order to shift the emphasis from the sorting of students according to standardized norms to the developing of students according to measures appropriate to their abilities and goals, students must be in a position to ask questions of institutions that are comparable to those now asked of them by institutions. This may soon happen. A study group reporting to the College Entrance Examination Board has recommended that the CEEB "right the balance" by providing students with a "more accurate and detailed basis for choosing a college." This would be done by requiring institutions which use board scores to submit to tests which would solicit information on "class size, time spent in class by professors, the faculty-student ratio, the number of students who drop out each year and why, and a measure . . . of the school's social and intellectual climate" ("Panel Asks Wide Reform of College Board Exams," New York Times, Nov. 1, 1970). See Report of the Commission on Tests: I. Righting the Balance; II. Briefs, College Entrance Examination Board, Princeton, N.J., 1970.

41. The evolution of such measures as aptitude and achievement tests was of course indispensable to the breaking down of the aristocratic dominance of higher education, as noted above. And they will continue to play an important role in the identification of certain kinds of talent and in helping match students with the institutions most suited to their abilities and purposes.

42. There have been significant attempts to measure these dimensions of student development on the part of researchers such as Nevitt Sanford et al. (The American College, Wiley, New York, 1962), Arthur Chickering (Education and Identity, op. cit.), William Perry (Forms of Intellectual and Ethical Development in College Years, Holt, Rinehart and Winston, New York, 1970), and the many whose efforts are

reported by Feldman and Newcomb, op. cit. Although the results of these studies clearly show the interrelationship between "personal" and "intellectual" growth, educational institutions have been slow to respond by developing more appropriate techniques for assessing and facilitating student development.

43. See Chickering, Education and Identity, op. cit., esp. pp. 196-219, for a discussion of how different styles of "curriculum, teaching and evaluation" affect student learning.

44. The College Entrance Examination Board, in response to a growing constituency with new needs, is currently engaged in an extensive effort to develop new kinds of testing along the lines suggested.

45. For an overview of non-traditional alternatives to evaluation and identification of learning, see Ernest W. Kimmel, "Problems of Recognition," in Samuel Gould and Patricia Cross, eds., Explorations in Non-Traditional Study, Jossey-Bass, 1972, pp. 64-95.

46. In the Task Force paper on Graduate Education, we argue that "the main criteria for admission should include demonstrated motivation: a goal-oriented aspiration to graduate study evidenced by willingness to take initiative and set standards for oneself and by independent accomplishment in non-classroom as well as classroom activities" (Report on Higher Education: The Federal Role: Graduate Education, Office of Education, Department of Health, Education, and Welfare, Washington, D.C., March 1973, pp. 34-35). Examples of fellowship programs which already employ standards beyond the purely academic are Rhodes Scholarships, and Danforth and Kent Fellowships.

47. This is true despite evidence that, beyond a given level, grades (both undergraduate and in medical school) are essentially unrelated to measures of on-the-job performance. See Hoyt, The Relationship Between College Grades and Adult Achievement, op. cit., pp. 25-30. See also footnotes 35 and 39 of this chapter.

48. The Federal government is already involved in these matters. Thus, it has lent its power and prestige to the traditional methods for evaluating colleges and universities through the accrediting process, without serious consideration of the effects. Federal programs, such as NDEA or the programs of the National Science Foundation, have had an important

influence on the standards of both colleges and high schools, helping among other things to accelerate the spread of narrowly based academic merit testing.

II. THE END OF GUARANTEED SOCIAL MOBILITY

1. This popular view of social advancement has been prevalent at least since World War II. A 1949 Fortune survey of the general adult population responses to the statement "One must have a college education to get ahead" were 56% Yes and 36% No (Vol. 40, Sup. 1-16, September 1949). In response to the question,"If you had a boy or girl graduate from high school, would you want them to go to college or do something else?" 62% would want their boy to attend, 50% would want a daughter to attend. When the fathers were professionals these percentages changed to 82% and 74%, and when the father was a wage-earner, the corresponding percentages were 54% and 38%. At that time, the most important thing which parents thought college should do for their children was to train the boy for a particular occupation and to prepare the girl for marriage.

   In a 1973 statewide survey of the adult population by the California Poll, the proportion of adults agreeing strongly that "college education is a must for a young person to get anywhere" was 39%, with 31% agreeing with reservations. (Reported in the San Jose Mercury, July 3, 1973.)

2. A survey by the California Poll (See Footnote 1, this chapter) found that 76% of blacks and 52% of Chicanos compared to 35% of whites agreed strongly that "college education is a must for a young person to get anywhere." There also appeared to be a strong reverence for higher education among low-income adults. Of those with incomes under $4,999, 61% strongly agreed with the proposition; for incomes between %5,000 and $9,999, 39% agreed; $10,000 to $14,999 -- 37%; $15,000 to $19,999 -- 27%; $20,000 and above -- 36%.

   A recent ACE study indicates that 85% of black college freshmen versus 73% of non-blacks most often cite as their reason for going to college the desire to get a better job. Fifty-one percent of the fathers of the black college freshmen had not graduated from high school, compared to 23% for non-blacks. Black freshmen also held higher degree aspirations than non-blacks; 49% of blacks and 33% of non-blacks planned to work for a master's or doctoral degree. (Alan E. Bayer, The Black College Freshman: Characteristics and Recent Trends, American Council on Education Research Reports, Washington, D.C., 1972.)

3. The University of California's alumni office has sponsored a billboard campaign designed to facilitate recruitment, the slogan for which is "Education: the Key to Your Future." The obvious implication of their statement is that if one goes to college, one can expect to have a fulfilling career.

Evidence that students take these expectations seriously comes from the American Council on Education survey of each year's freshman class, which shows that the desire to obtain a high-paying job is an increasingly important reason for entering college, until today it is a prime concern of over two-thirds of the entering students. (The American Freshman: National Norms for Fall 1971, American Council on Education, Office of Research, Washington, D.C., 1971, p. 43.)

The same expectations are prevalent and determining as graduates seek advanced degrees. An Educational Testing Service study entitled "The Graduates: A Report on the Characteristics and Plans of College Seniors," which surveyed 21,000 seniors in 94 colleges, found that of those planning to attend graduate school, 50% thought an advanced degree would enhance chances for a good salary later on and about 21% indicated their plans for graduate school were based on the inability to find a good job right after college. (Higher Education Daily, Sept. 10, 1973.)

4. Veterans Administration News, April 26, 1973.

Additional examples include a notation in "Lifetime and Annual Income of Years of School Completed" (American Education, Vol. 7, No. 33, March 1971), that a college degree is worth $200,000-$250,000. Table 41 of the U.S. Bureau of the Census, Income in 1968, shows that males who have finished college but have done no graduate work have incomes of 170% of the mean income, compared to 111% for high school graduates and 96% for those who drop out of high school.

5. For a thorough description and analysis of higher education's impact on an individual's development see Arthur Chickering, Education and Identity, Jossey-Bass, San Francisco, 1972, and Kenneth A. Feldman and Theodore M. Newcomb, The Impact of College on Students, 2 vols., Jossey-Bass, San Francisco, 1970. The Christopher Jencks-David Riesman article "On Class in America," The Public Interest, Vol. 10, Winter 1968, is also useful for its discussion of the interaction between education and prestige. Jerome Karabel and Alexander Astin supplement this discussion with their examination of the roles of differentiated education in sorting people into positions of varying status and power. (Social Class, Academic Ability and College 'Quality,'" draft, American Council on Education, Washington, D.C., 1972, pp. 3,4.)

6. At the outset it is essential to understand that the concept of social status or class is very complex, engaging elements of family, occupation, life style and attitudes as well as income, power and wealth. Christopher Jencks and David Riesman provide a discussion of the factors shaping our perceptions of class and education both as an index of and a contributor to social status in their article "On Class in America."

Social mobility and particularly the ability to rise within the class structure is strongly emphasized in American traditions and philosophy. Empirical analysis of the extent of such mobility today may be found in Jencks et al., Inequality: A Reassessment of the Effect of Family and Schooling in America, Basic Books, New York, 1972. Jencks indicates that the correlation between a father's occupational status and his son's is less than .50; in other words, that a father can pass on about half of his occupational advantage or disadvantage. He also indicates that there is about as much variation in status between brothers as in the population at large (p. 179). Specifically examining the relationship between occupational status and educational attainment, Jencks finds a correlation of about .65; an extra year of school confers a status advantage of about 6 points, or the difference between a chemical and an electrical engineer or between a foreman and a plumber (p. 181).

Peter Blau and Otis Duncan (The American Occupational Structure, Wiley & Sons, New York, 1967) also explore that relationship, and their findings are reported in the table below.

PERCENTAGE DISTRIBUTION OF MALES BY INTERGENERATIONAL MOBILITY BY LEVEL OF EDUCATIONAL ATTAINMENT

	Elementary	High School		College		
Mobility	8	1-3	4	1-3	4	5+
High Upward	15.9	18.3	27.7	31.1	45.7	53.1
Upward	25.7	26.1	25.8	23.1	23.4	22.9
Stable	37.2	31.3	24.5	19.1	13.8	12.3
Downward	17.1	17.2	13.6	15.1	11.7	9.2
High Downward	4.2	6.9	8.4	11.6	5.4	2.8
Total	100.1	99.9	100.0	100.0	100.0	100.0

To some extent the interpretation of higher upward intergenerational mobility must be modified by an understanding that those with lower socioeconomic backgrounds are less likely to have educational advantages. Patricia Cross documents this trend in Beyond the Open Door, Jossey-Bass, San Francisco, 1971, p. 7:

HIGH SCHOOL GRADUATES ATTENDING TWO- OR FOUR-YEAR COLLEGES

	Socioeconomic Quarter 1 (low)			2		
Ability Quarter	1957[a]	1961[b]	1967[c]	1957	1961	1967
Male	Per Cent			Per Cent		
1 (low)	6	9	33	18	14	30
2	17	16	43	27	25	39
3	28	32	60	43	38	69
4 (high)	52	58	75	59	74	80
Female						
1 (low)	4	8	25	9	12	28
2	6	13	28	20	12	36
3	9	25	44	24	30	48
4 (high)	28	34	60	37	51	73

	Socioeconomic Quarter 3			4 (high)		
Ability Quarter	1957	1961	1967	1957	1961	1967
Male	Per Cent			Per Cent		
1 (low)	18	16	29	39	34	57
2	34	36	55	61	45	61
3	51	48	68	73	72	79
4 (high)	72	79	89	91	90	92
Female						
1 (low)	16	13	36	33	26	37
2	26	21	50	44	37	67
3	31	40	68	67	65	77
4 (high)	48	71	83	76	85	93

[a]1957 graduates, with 1964 follow-up; Sewell and Shah (1967)

[b]1961 graduates, with 1962 follow-up;Schoenfeldt (1968)

[c]1967 graduates, with 1968 follow-up; ETS Growth Study data analysis by Thomas Hilton

Dealing more specifically with the relationship between education and income, Walter Adams and A.J. Jaffe ("Economic Returns on the College Investment," Change, November 1971) found that young men with a term or two of college (40% of entrants who do not graduate) earned an average 10% more than men with only a high school credential; men completing three or four terms (an additional 37% of nongraduates) earned 19% more than high school graduates; men failing to complete the final two years of college (23%) earned 21% more. But men who completed college or proceeded further earned on the average about 50% more than high school graduates.

Richard Eckaus, who uses a standardized hourly income concept to make his calculations, arrives at a 12% annual return on an investment in a college education (Estimating the Returns to Education, Carnegie Commission on Higher Education, Berkeley, 1973), which is consistent with most estimates -- in the range of 12 to 15 per cent. See Dael Wolfle, The Uses of Talent, Princeton University Press, Princeton, N.J., 1971, pp. 74-101.

Finally, it is important to note that while these studies draw correlations between education and social status, nothing can be said about causal relationships. There are no studies to indicate that the individual with a college diploma who may have a 50% income advantage over the median enjoys that status because of his education. He might have enjoyed similar advantages without the degree, based on his own creative abilities, aggressiveness, or other personal qualities which are rewarded in the job market.

7. These correlations were cited in Stephen B. Withey, "Some Effects on Life Style," Chapter 5 in A Degree and What Else?, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971, pp. 81-94.

It is questionable, clearly, to what extent the presence of these traits can actually be attributed to the higher education experience. It may be simply the case that people less likely to be on welfare and less likely to have mental health problems are more likely to attend college.

8. Consumer Income, Current Population Reports, U.S. Department of Commerce, Bureau of the Census, Series P-60, No. 75, December 1970. James C. Byrnes ("On the Growth and Financing of Post-Secondary Education: Who Pays, Student or Taxpayer?", Post-Secondary Education, Where Do We Go From Here?, Syracuse Educational Policy Research Center, Summer 1971) found a similar 60% income overlap when he surveyed 35- to 44-

year-old male college versus high school graduates. One should note, however, a possible bias in his conclusions, since the full income benefit of the college degree might not have been realized by the age of 44.

9. The Report on Higher Education: The Federal Role. Graduate Education, U.S. Office of Education, Department of Health, Education, and Welfare, Washington, D.C., 1973, deals substantively with the dimensions and causes of these initial imbalances and the Federal government's influence in correcting or sustaining them(pp. 1-16).

10. The problem with respect to engineers has received particular attention because of the visibility of the defense and aerospace industries where dramatic cutbacks in government expenditures have displaced many workers. Presently the market for engineers has improved. The New York Times of March 11, 1971, reports that with current drops in enrollments in engineering, conservative forecasters are predicting an average shortage of 10,000 engineers for the next few years.

The rising popularity of socially relevant occupations and particularly the zeal for social reform has turned many young graduates towards a career in law. Enrollments in law schools have risen from 26,508 in 1965 to 37,538 in 1971. Although the Department of Labor predicts that the demand for new lawyers will remain stable -- about 14,000 new jobs per year through the 1970's -- such predictions are complicated by the fact that lawyers have options outside strictly legal practice, such as real estate, finance or stock brokerage. Factors such as substantial growth in the paralegal field, simplified divorce procedures, the spread of no-fault insurance, or Supreme Court rulings changing counsel requirements for defendants also complicate predictions. See Occupational Manpower and Training Needs, Bulletin 1701, U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C., 1971; and College Graduates and Jobs, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1973, pp. 99-108.

The teaching profession has been experiencing reduced demand as increases in primary and secondary school enrollments have slowed. Wolfle (op. cit., pp. 40-42) explains the numerical effects of the declining birth rates since 1957 on elementary and secondary school enrollments with projections until 1977. He indicates that while such enrollments increased

by between 500,000 and 1.5 million per year during the late fifties and sixties, the numbers of elementary and secondary students will show no yearly increases throughout the seventies. His estimates are borne out by the San Francisco Chronicle of September 17, 1973, which states that according to the U.S. Office of Education, public school enrollment this year has declined by about 300,000 since last fall -- from 45.75 million students to 45.4 million. Laurence B. DeWitt and A. Dale Tussing (The Supply and Demand for Graduates of Higher Education: 1970-1980, Syracuse University Research Corporation, 1971, pp. 23-26) analyze the effect that such declines will have on the demand for teachers. They estimate an annual demand for about 145,000 teachers in the 1970-1980 period and project that if trends continue uninfluenced by the surplus, as many as 320,000 persons would be seeking those positions in 1980. The problem assumes special importance when one considers the numbers of graduates which teaching traditionally employs. Wolfle (op. cit., p. 39) notes that in 1966 it took one-third of all graduates to fill teaching positions. The Higher Education Daily of July 23, 1973, indicates the stability of that figure, reporting that of the 735,000 persons receiving bachelor's degrees and advanced degrees between July 1971 and June 1972 who were counted in the labor force, 666,000 were employed by October of 1972, and 33.6% of these were in teaching jobs.

It is unlikely that the job situation for college graduates will improve substantially during the 1970's. The Manpower Report of the President, United States Department of Labor, U.S. Government Printing Office, Washington, D.C., 1972, estimates that 9.8 million college-educated persons will enter the labor force during the 1970's and that the demand for these workers will be about 9.6 million. However, of these 9.6 million jobs, 2.6 million will be attributable to educational upgrading, which means that college graduates will be filling positions formerly held by nongraduates. These 2.6 million will in effect be underemployed. Numerous other studies obtain similar estimates. See College Graduates and Jobs, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1973; DeWitt and Tussing, op. cit.; study by Herbert Bienenstock, reported in the New York Times, September 25, 1972, "Job Outlook for College Graduates in the 1970's."

11. Howard R. Bowen and Garth L. Mangum, Automation and Economic Progress, Prentice-Hall, Englewood, N.J., 1966, p. 17.

12. Much of the controversy concerning whether the increased introduction of sophisticated technology will raise or lower the necessary education level of the work force is based on case studies of specific plants or industries. After conducting a series of such studies, the Manpower Research Unit of the British Ministry of Labour concluded that in regard to a particular skill group, some introductions of new technology "deskilled" operations; others increased skill requirements. The average effects were not great. See Sir Denis Barnes, "Technological Change and the Occupational Structure," International Conference on Automation, Full Employment and a Balanced Economy, Rome, 1967, The American Foundation on Automation and Employment, Inc., p. 5. Similar conclusions were reached by Morris A. Horrowitz and Irwin L. Herrnstadt, "Changes in the Skill Requirements of Occupations in Selected Industries," Report of the National Commission on Technology, Automation and Economic Progress, Appendix, Vol. II, pp. 227-230.

13. Charles Silberman explains in The Myths of Automation, Harper & Row, New York, 1966, pp. 33-35, how the tremendous government demand for professional and technical personnel to work in defense and aerospace was responsible for about one-quarter of the growth in industry's employment of those workers during the 1950's. Defense outlay between 1953 and 1959 for missiles, electronic equipment and research and development more than doubled -- from $3.3 billion to $7.1 billion -- and then reached a peak in 1964 of $16 billion. But in 1964 and 1965 this wave of expenditures came to a halt. While private industry performs three-fourths of all research and development, the Federal government finances two-thirds. Reduced demand and unemployment of technical personnel has resulted.

14. Some job categories are precise both in who is trained as a member of the profession and in the number of openings. Such jobs are a growing share of the work force -- nurses, teachers, doctors, college faculty members, librarians, and the like. In another set of jobs, one can tell who has been trained for that role, but not how many are required in society -- lawyers, architects, and so forth. In most jobs, it is not possible to tell either how many people are trained for the job or how many are required -- stockbrokers, clerical employees, and most government workers belong to this last category. DeWitt and Tussing, op. cit., pp. 11-19, provide a discussion of the difficulties caused by interaction of supply and demand and the effects of time lags in processing market information in determining manpower requirements.

It is also interesting to note as pointed out by Silberman (op.cit., p. 120) and Wolfle (op. cit., p. 17) that both the Japanese and Western Europeans operate very sophisticated economies with much smaller proportions of college-trained manpower than we do, indicating again the ambiguity of such requirements for training.

For further discussion see Wolfle, op. cit., pp. 43, 112-117.

15. While it is our conviction that a college education is useful for police officers, it is also apparent that credentials are often used as merely a screening device. It is noted in Work in America, Report of a Special Task Force to the Secretary of Health, Education, and Welfare, MIT Press, Cambridge, Mass., 1973, p. 135, that 85% of new educated workers accept jobs previously filled by individuals with fewer credentials. Jencks, in Inequality, p. 182, applies an interesting analysis to this argument. He demonstrates that "once people enter a particular occupation, those that have additional education do not make appreciably more money than others in the occupation. Within any given occupation, an extra year of school or college is associated with an average salary advantage of only 2 to 3%." Jencks finds that this advantage largely reflects differences in cognitive skills, and when men with similar test scores are compared, those with more schooling have no advantage. Workers with more education do not show superior performance. DeWitt and Tussing, op. cit., pp. 16-17, describe how jobs change to actually require more skills when there is an oversupply of college graduates. Nelson, Pech and Kalachech in Technology, Economic Growth and Public Policy, The Brookings Institution, Washington, D.C., 1967, cite an Eckaus study, "Economic Criteria for Educational Training," which found that "changes in the occupational work force required only a 4% rise in average educational attainments, much less than the rise that was actually experienced" (p. 143).

16. There are several ways to calculate this increase; all involve some uncertainty due to overlap in degrees granted to particular individuals, labor force projections, and imprecise knowledge about the educational attainments of those who will be leaving the labor force. Perhaps the simplest way to obtain this estimate is to consider that with a present labor force of approximately 90 million, of whom 14% have a college degree, about 12.6 million workers presently are college graduates. By 1980 an additional

10 million college graduates will enter the labor force, which at that time will be about 100 million. (U.S. Bureau of Labor Statistics, Special Labor Force Report No. 119, Labor Force Projections to 1985.) Since those leaving the labor force during this period will be predominantly from the highest age brackets which also have the lowest percentages of degree holders, it is reasonable to expect that the proportion of the work force holding college degrees will be somewhere in the upper twenties by 1980.

17. Although the data on college enrollments and degrees awarded in foreign countries tends to be scattered, one can draw some rough comparisons with the United States. In Sweden, for example, where the percentage of 20-year-olds passing the gymnasium leaving examination in 1968 was 23% and where the percentage of all 19- to 24-year-olds in higher education was 11% in 1964 (compared to similar college enrollment rates in the U.S. for that period of between 35 and 40%), there has been a marked concern for many years about an oversupply of graduates. And this is in an economy considered to be one of the most advanced, well into the post-industrial era of a knowledge-based economy. See Barbara Burn, Higher Education in Nine Countries, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971.

18. Similar labor force changes are foreseen by Bowen and Mangum, op. cit., pp. 62-66, drawing on Bureau of Labor Statistics for the years 1964 and 1975 (projected). Andrew F. Brimmer anticipates labor force restructuring for as late as 1980 in his article "The Economic Outlook and the Future of the Negro College," Daedalus, Vol. 100, No. 3, Summer 1971. For additional estimates of changes by occupation until 1980, see Time Magazine, May 24, 1971, p. 52, and Occupational Outlook Handbook, 1972-73, Bureau of Labor Statistics, Washington, D.C.

19. A description of how this calculation was made can be found in Footnote 4 of Chapter 1.

20. Figures on the teaching profession are from the New York Times, Aug. 5, 1973.

    DeWitt and Tussing, op. cit., p. 8, suggest that the underemployment of college graduates, a very difficult phenomenon to measure, may be voluntary in the sense that students feel they have a better chance of getting a good job if they have a credential, even if the job has little or no relation to their field of study. They may thus use the credential to obtain a job for which they are,

strictly speaking, overqualified. Bowen and Mangum (op. cit., pp. 17-18), Eva Mueller (Technological Advance in an Expanding Economy, Survey Research Center, Institute for Social Research, Ann Arbor, Michigan, 1969, p. 11), and Silberman (op. cit., pp. 119,120) all hold the view that it is indeed those with less education who must bear the brunt of unemployment. They substantiate their viewpoint with data and argument.

It is also becoming apparent that college graduates frequently find themselves working in fields unrelated to their area of study in school. The New York Times of September 2, 1973, reported that a U.S. Department of Labor study showed that 18.5% of the members of the Class of 1972 did not hold jobs related to their major educational fields. An additional 13% were in work only "somewhat related" to their studies. This point is also made by A.E. Bayer, H.S. Astin, and J.K. Folger in Human Resources and Higher Education: Staff Report of the Commission on Human Resources and Higher Education, Russell Sage Foundation, New York, 1970, pp. 232-235, and by Wolfle, op. cit., pp. 130-135.

21. See Footnotes 21 and 23 in Chapter 1.

22. See Myths and Reality, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C., 1971; and Handbook of Labor Statistics 1972, Bulletin 1735, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C., 1972.

23. Earned Degrees Conferred in 1970-71, National Center for Educational Statistics, Department of Health, Education, and Welfare, Publication No. OE 73-11412, U.S. Government Printing Office, 1973, p. 8.

24. The declining birthrate as of 1957 (see Footnote 10, this chapter) will begin having this effect in 1975. Carl York of the Office of Science and Technology, in an unpublished note, predicts that 1979 will be the peak year for persons turning 18.

25. One result is that the increased number of college-educated is in itself a force in reshaping the nature of American employment.
--Economics departments in big business have been spawned by the availability of Ph.D.'s in this field.

--Many engineers are working to find solutions for pollution, mass transportation, and other contemporary problems.
--One particular instance is the creation -- by recent graduates -- of a number of new restaurants in the San Francisco Bay Area, with more decentralized and personal working relationships among employees and between waiter and customer.

Hopefully, this type of change from within occupational structures will eventually affect all work-roles, so that, for example, a nurse can be more of an autonomous and professional person. Work in America offers an extensive discussion of the redesign of jobs and the humanization of work (pp. 93-120, 188-201). DeWitt and Tussing, op. cit., pp. 16-19, analyze the process by which many jobs are reshaped.

26. There are already indications that the job outlook for college graduates may be improving. A College Placement Council survey released in August, 1973,indicates that demand for this year's college graduate increased 15 to 20% over last year. Especially bright were the prospects for those majoring in engineering (up 30%), science and mathematics (up 27%) and business (up 23%). The resulting increases in pay offers ranged from 2.3% for humanities and social sciences to 4.8% for chemistry, physics and mathematics graduates.

27. It may well be, of course, that "downward social mobility" used in this sense does not reflect at all the perspective of the individual. This is presumably true of the middle-class youth who opts for a low-consumption communal life-style, and it is equally true for offspring of upper-class families who become, for example, scholars. As such, downward mobility does not necessarily reflect an inability to achieve. Work in America explores changing attitudes towards work, focusing on the growing dissatisfaction and alienation of young white collar workers as well as those in blue collar occupations (pp. 10-23, 29-56).

28. At equal levels of ability, children from upper-and middle-income quartiles are more likely to enter and complete some form of post-secondary education than their lower-income counterparts (see Footnote 6, this chapter). The consequences of financial advantage for home environment as well as tuition costs must surely play a role in this,

but psychological factors do so as well. Apparently, the expectations imposed by parents -- or the lack of them -- make a significant difference. Riesman and Jencks discuss this phenomenon in The Academic Revolution, Doubleday & Co., Garden City, N.Y., 1969, p. 133. Leland L. Medsker and James W. Trent, in Beyond High School: A Psychosocial Study of 10,000 High School Graduates, Jossey-Bass, San Francisco, 1972, p. 100, also found that those students most likely to complete college had planned in advance to attend and had parents who wanted them to go. Eric Ashby, Any Person, Any Study, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971, pp. 26-28, indicates that financial considerations are the reason for dropping out for only about one-fifth of students who do not complete college. This suggests that the large majority of dropouts are middle class young people who are simply unmotivated to obtain a degree. A.J. Jaffe and Walter Adams, 1971-1972 Progress Report and Findings: Follow-Up of 1965-1966 High School Seniors and Related Higher Educational Materials, Bureau of Applied Social Research, Columbia University, New York, 1971, also substantiate the contention that family income has a relatively weak relationship to educational persistence (pp. 21-25). For further information on the role of motivation and other factors affecting persistence, see Footnote 2, Chapter 3.

29. David Riesman has observed of Harvard students in this regard that "it is the very opening of meritocratic competition to so many more contestants that has helped to spoil the contest for some young people of upper-middle-class origins. To compete to retain their inherited advantage would seem somehow unfair and would require a change in personal style" ("Education at Harvard," Change, September 1973, p. 35).

30. This anecdote was related by the couple to a member of the Task Force.

31. The expansion of access means that entrance is assured. However, with the decline of the legacy concept in admissions and with growing reliance on grades and test scores, alumni parents are now finding it difficult to even insure access for their children to the more elite universities and graduate programs. Medical school admissions are an obvious case in point.

32. The San Francisco Examiner of May 13, 1973, notes that members of Local 3 of the Operating Engineers Union who handle big equipment on construction jobs average $17,000 for a nine-month year. The Bureau of the Census, Current Population Reports, Consumer Income, Series P 60, No. 84, July 1972, listed the percentages of operatives including transport workers in various income brackets. With incomes under $1,000: .7% of such workers; with incomes between %5,000 and $9,999: 6.6%; $10,000-$12,000: 15.7%; $12,000-$15,000: 15.9%; $15,000-$24,999: 14%; $25,000-$49,000: 1.1%. These incomes compare with a median household income of $9,700 in 1972 (Consumer Income: Household Money Income in 1972 and Selected Social and Economic Characteristics of Households, Bureau of the Census, Series P 60, No. 89, July 1973). One should also consider that the median incomes for individual wage-earners must necessarily be lower than incomes for households.

33. This conclusion finds support in Murray Milner's book Illusion of Equality: The Effect of Education on Opportunity, Inequality and Social Conflict, Jossey-Bass, San Francisco, 1972, and in Toward Equal Opportunity for Higher Education, College Entrance Examination Board, Princeton, N.J., 1973, p. 1-5. To the degree that optimal conditions obtain -- where a license or degree in pharmacology, say, is available to anyone with the ability and motivation to earn it, an emphasis on such strictly objective criteria as test scores or credentials may enhance mobility for currently disadvantaged groups from low status homes. Jencks, in his Inequality, p. 193, makes the point that if jobs were rationed on the basis of purely subjective criteria, e.g., interviews or supervisor ratings, those same groups might find their mobility even more restricted than it is at present. Of course an employer's arbitrary insistence on a degree may also unfairly deny access to better jobs to those who find themselves unsuited to academia or unable to attend college or complete their education.

34. "The Supreme Court, Mr. Chief Justice Burger, held that an employer was prohibited by provisions of Act pertaining to employment opportunities from requiring a high school education or passing of a standardized general intelligence test as a condition of employment in or transfer to jobs where neither standard was shown to be significantly related to successful job performance. Both requirements operated to disqualify Negroes at a substantially higher rate than white applicants and jobs in question formerly had been filled only by white employees as part of a long-standing practice of giving preference to whites." Griggs vs. Duke Power Company, 91 S. Ct. 849 (1971).

35. Report on Higher Education, U.S. Government Printing Office, Washington, D.C., 1971, p. 46.

36. ENROLLMENT IN HIGHER EDUCATION
(in thousands)

	Total Enrollment	Total Black Enrollment	Blacks as Percentage of Total Enrollment
1964	4,643	234	5.0%
1965	5,675	274	4.8
1966	5,999	282	4.7
1967	6,401	370	5.8
1968	6,801	435	6.4
1969	7,435	492	6.6
1970	7,413	522	7.0
1971	8,087	680	8.4
1972	8,313	727	8.7

These figures were compiled from the Bureau of the Census, Current Population Reports, Population Characteristics, "Social and Economic Characteristics of Students." The enrollment statistics measure the numbers of blacks in "college" who are defined as full- or part-time students at universities, colleges or professional schools. Attendees of proprietary schools are ostensibly excluded from the count, but here the definitions of institutions become very vague; this undoubtedly contributes to discrepancies between the results of this and similar surveys. For a discussion of the many problems associated with gathering statistics on minorities, see Reynolds Farley, "The Quality of Demographic Data for Non-Whites," Demography, Vol. 5, No. 1, 1968. The Bureau of Labor Statistics ("The High School Class of 1972: More at Work, Fewer in College," Monthly Labor Review, June 1973)reported that the proportions of black and white high school graduates entering college in 1972 was nearly the same (47.6 and 49.4 percent, respectively). While this shows a substantial decrease in racial imbalance compared to 1968, when enrollment rates were 56.6% for whites and 46.2% for blacks, as the Bureau indicates, their conclusions must be modified by two factors: 1) the figures for blacks also include Orientals American Indians and other races, and 2) a larger proportion of young blacks drop out of high school before graduation -- about 19% as of October 1972, compared to 13% for whites.

37. See table in previous footnote.

38. Patricia Cross documents the figures for Spanish-speaking graduates and undergraduates in her article "The New Learners," Change, February 1973, p. 33. One gets an indication of trends in Puerto Rican enrollment by examining statistics from the Report of the Fall 1971 Undergraduate Ethnic Census of the City University of New York, 1972, p. 9. It shows that Puerto Rican enrollment in community colleges increased from 5.5% of the student population in 1967 to 8.6% in 1971. The enrollment increase for senior colleges was from 1.9% in 1967 to 4.5% in 1971. It should also be noted that 75% of the Puerto Rican population of the U.S. resides in New York or New Jersey, suggesting a general significance for these figures. In the case of native Americans, the Higher Education Daily of July 26, 1973, extrapolating from Bureau of the Census data, reports that the number of American Indians attending college doubled between 1960 and 1970. The actual census report, American Indians, Bureau of the Census, PC (2) - 1F, 1973, showed total college enrollment of American Indians in 1970 at 14,191. "College" here includes junior or community colleges, four-year colleges, and graduate or professional schools.

39. Patricia Cross, "The New Learners," p. 34. Further evidence of rising graduate enrollments comes from a University of California survey of the nine campuses, which showed that in 1972,21% of graduate students were minority students as compared to 6% in 1967. This 21% is specifically broken down into 5.7% for blacks, .5% for American Indians, 7.9% for Orientals, 5% for those with Spanish surnames and 1.9% other. Reported in the San Francisco Chronicle, July 11, 1973.

40. The nature and extent of black progress over the past decade has been the subject of much controversy. Of particular interest was the Wattenburg-Scammon article "Black Progress and Liberal Rhetoric," Commentary, April 1973, which supported with extensive statistical analyses the proposition that a majority of blacks has moved into the middle class. Principal criticisms of their work (Commentary, August 1973, pp. 4-22) disputed the validity of their interpretations of the data and argued that even if it could be shown that in percentage terms blacks had progressed in relation to whites, their absolute relationship

had not improved, and black status remains deplorable. The Census Report, Characteristics of the Low-Income Population: 1972 (P-60, No. 88), may give weight to the latter argument. It found that while the number of low-income white Americans declined by about 9% between 1971 and 1972 (from 17.8 million to 16.2 million), there was a small increase in the number of blacks in poverty, from 7.4 to 7.7 million. In 1972, about 9% of all white persons were in the low-income category; the figure for blacks was 33%. However, the situation does appear more optimistic for young, college-educated blacks. The Census Bureau report, Social and Economic Status of Negroes in the United States, Special Studies, Current Population Reports, Series 23, No. 38, U.S. Department of Commerce, indicated that young black women aged 25 to 34 with at least one year of college earn 97% of what similarly trained white women of that age earn. Young black men of that age and training earn an income 84% that of their white counterparts. This compares with earnings by similarly educated older black men and women (35-54) of 71% and 98% those of their male and female white counterparts.

41. While the Wattenburg-Scammon analysis of black progress (see the previous footnote), extolling the remarkable advance of blacks over the last decade, may be encouraging, it should not be allowed to obscure the many problems confronting blacks who are not finding success either in education or careers. Furthermore, it should be emphasized that even those minority individuals who are successful face many difficulties which make their advancement particularly arduous. Martin Kilson describes the feelings of alienation and frustration of black students in the white environment of Harvard and the dilemmas and conflicts associated with black separatism on such campuses ("The Black Experience at Harvard," The New York Times Magazine, September 2, 1973). Charles V. Willie and Arline S. McCord offer a more comprehensive survey of these difficulties, investigating social and housing problems, relationships with faculty, and problems in recruitment and financial aid in their study Black Students at White Colleges, Praeger, New York, 1972.

42. See, for example, Elliot Liebow, Tally's Corner, Little, Brown & Co., Boston, 1966, and William McCord, John Howard, Bernard Friedberg, and Edwin Harwood, Life Styles in the Black Ghetto, Norton, New York, 1969.

43. An excellent example is the case of DeFunis vs. Odegaard, which was brought against the University of Washington where a white law school candidate charged that his 14th Amendment rights to equal protection of the laws had been violated when the law school denied him admission while accepting certain minority applicants with lower test scores and grade point averages who would not have been admitted except for their minority status. The Washington State Supreme Court rejected his arguments, overturning the decision of a lower court. It is expected that the case will be appealed to the U.S. Supreme Court. Reported in the Chronicle of Higher Education, March 26, 1973.

44. Alan Bayer et al., op. cit., p. 16, indicates that black college students are twice as likely (40%) as were non-blacks (18%) to depend on scholarships and grants as a major source of financial resources. Consequently, they also expressed considerably more anxiety about their abilities to finance their education. The recently adopted federal program of Basic Educational Opportunity Grants based strictly on need should make funds available to all low-income minorities. A more germane problem is communicating the availability of such funds to those students. Adequate counseling and information services are essential.

45. The role of family income is problematic for another group as well: the "emancipated" student, who is financially on his or her own, but is refused aid because of the family's financial status.

46. The Carnegie Commission on Higher Education report From Isolation to Mainstream: Problems of the Colleges Founded for Negroes, McGraw-Hill, New York, 1971, offers evidence of the current and historic contributions of the black colleges to the education of black Americans and discusses problems related to their continued effectiveness. The Summer 1971 issue of Daedalus, "The Future of Black Colleges," Vol. 100, No. 3, is devoted to the problems and opportunities for traditionally black institutions. Additional information may be found in T. Sowell, Black Education: Myths and Tragedies, David McKay Co., New York, 1973.

47. Task Force Report on Higher Education: The Federal Role. Graduate Education, 1973, pp. 28-36.

48. The consensus of college and university officials attending a College Entrance Examination Board conference on minority admissions was that the commitment to expand non-white enrollments had lost much of its force. Because there have been dramatic percentage increases in minority enrollments, many institutions may be satisfied to level off their recruitment efforts without realizing the 10 to 15% range which is the percentage of minorities in the college-age bracket of the population. It was believed that the greatest threats to increased enrollments were the proposed cutbacks in student financial aid and growing resentment of programs which treat minority applications preferentially, admitting these students with lower test scores and grade point averages. (New York Times, May 14, 1973.)

The Wall Street Journal of October 12, 1973, similarly reported feelings of educators that colleges and universities are no longer making a concentrated effort to recruit minority students. The reasons cited include uncertainty about federal financial aid, belief that the pool of "qualified" minority students is drying up (although black students of equal abilities are less likely to enroll than whites; see Table 3, p. 35 of this report), and disappointment that the recruitment effort is not having a major effect on social problems.

The Christian Science Monitor of September 20, 1973, considered evidence of this waning commitment in its article "Cultural Centers Questioned." It reported that special black studies programs are prime targets for universities caught in the financial squeeze. The article specifically points to the University of Wisconsin, which cut $90,000 from its budget support of the Afro-American Cultural Center on the Madison campus, the failure of Columbia University to replace faculty members who have left the African Studies Institute, and the announcement at New York University a year ago of its position against separate facilities such as dormitories and social groups for minorities. It must be understood, however, that often these issues tend to be complex and many-faceted. For instance, the University of Wisconsin responds in that same Christian Science Monitor article that its principal mission is academic and that given limited resources, programs which directly support that mission must be given priority. University officials also cited philosophical bases for the cutback in funds. These were related to a resolution enacted by the university's Board of Regents supporting only multicultural and integrated programs on any campus. (New York Times, August 9, 1973).

49. The Higher Education Amendments of 1972, with their emphasis on aid to disadvantaged students, particularly through the newly established Basic Educational Opportunity Grants, are a strong beginning of our reaffirmation of the national commitment to social equity.

50. DeWitt and Tussing, op. cit., pp. 25-26, indicate that it was not until late July 1971 that the National Educational Association, the principal analyst of teacher supply and demand in the U.S., became aware of or alarmed by the impending teacher surplus.

51. Wolfle op. cit., pp. 47-49, discusses these constraining traditions which result in severe underutilization of trained manpower. In India at the time of the last census, 16% of all recent science and engineering graduates were unemployed. In the Philippines one-third of the medical school graduates never practice. It should also be noted, however, that part of this waste of trained manpower may be attributable to the economies' inabilities to create a market demand for the skills of their graduates.

52. The Annual Report of the Office of Immigration and Naturalization indicates that for the year ending June 30, 1972, 11,427 foreign physicians entered the U.S.,480 more than in the previous year. Of those, 7,144 entered as permanent residents (1,388 more than in 1971) and the remainder came in as exchange visitors, students or temporary workers. The Council on Medical Education of the American Medical Association indicates that in 1972, 6,661 foreign physicians were licensed in the U.S., representing 46% of all newly licensed physicians of that year (Medical Licensure Statistics, 1972, p. 19). The numbers of Americans studying abroad is difficult to calculate due to reporting practices of foreign medical schools. Estimates from the American Medical Association suggest that between 600 and 700 go abroad each year, with about 4,000 studying at foreign schools at any one time.

53. Although funding of such programs has been sustained despite administration attempts to pare federal expenditures, the impoundment of substantial funds is undermining incentives to correct health manpower imbalances. Documents submitted to the House Interstate and Foreign Commerce Committee, June 20, 1973, by the Department of Health, Education and Welfare and released by the committee July 25 listed $297,562,000 unspent on health manpower programs in the fiscal year 1973. Also of interest in this regard is that

Secretary of Health, Education and Welfare Weinberger is proposing to change the format of such incentives from training grants to fellowships to be awarded directly to students in the health fields.

III. NEW REQUIREMENTS FOR EFFECTIVE EDUCATION

1. Eric Ashby observes that the "frivolous student" was tolerated two generations ago because he paid his own way and because there was no pressure on places (Any Person, Any Study, McGraw-Hill, New York, 1972, p. 29).

2. The Carnegie Commission on Higher Education estimates from a 1969 survey that "about 30% of all enrolled undergraduates appear to be less than fully committed" (Reform on Campus, McGraw-Hill, New York, 1972, p. 51). Of these students, 5% were "very reluctant," 7% were "marginally reluctant," and 18% were "marginally committed." A study by A. J. Jaffe and Walker Adams (American Higher Education in Transition, Bureau of Applied Social Research, Columbia University, New York, 1969) found that about 15% of students were in college "against their own will" (cited in Reform on Campus, p. 51 and Ashby, op. cit., p. 29). Although the draft no longer represents an incentive for reluctant participation in education beyond high school, other forces do: parental expectations, and the expectation that college-going is a "must" to get a satisfactory job. However, the percentage of "involuntary" students may be decreasing as alternatives to lockstep college attendance are legitimized.

3. K. Patricia Cross defines "new learners" as "four distinctive but overlapping groups: (1) low academic achievers who are gaining entrance through open admissions: (2) adults and part-time learners who are gaining access through non-traditional alternatives; (3) ethnic minorities; and (4) women who are gaining admission through public conscience and Affirmative Action" ("The New Learners," Change, Vol. 5, No. 1, Feb. 1973, p. 32).

4. K. Patricia Cross found that the new students are more concerned with education as a preparation for good jobs and incomes than are traditional students (New Students and New Needs in Higher Education, Center for Research and Development in Higher Education, University of California, Berkeley, 1972, pp. 111-128). Since credentials are widely perceived as necessary for good jobs and salaries (see Footnotes1,2,Chapter 2), they are naturally attractive to the new learners.

5. Alabama A & M, with a student body composed mainly of blacks from rural areas, reports that attrition has dropped from 65% to 35% after basic restructuring of their program. The College for Human Services boasts completion rates of over 80% for students most of whom traditionally would not have participated in post-secondary education (information obtained from officers of these institutions).

6. The only study to date of Vietnam-era veterans found that the returning veterans were more likely to give as reasons for college attendance "gaining a general education, becoming more cultured, improving their reading skills, and learning more about things that interest them. They were less likely to say that they had come to college because they wanted to meet new and interesting people or because their parents wanted them to" (David Drew and John Creager, The Vietnam-Era Veteran Enters College, ACE Research Report, Vol. 7, No. 4, p. 13). See footnotes 11 and 12 below for studies of returning World War II veterans and older students.

7. Jencks and Riesman, The Academic Revolution, Doubleday & Co., Garden City, New York, 1969, p. 133.

8. See footnote 2, above. For psychological and sociological analysis of the predisposition of many modern youth to postpone commitment, see Joseph Katz et al., No Time for Youth, Jossey-Bass, San Francisco, 1968; Kenneth Keniston, The Uncommitted: Alienated Youth in America, Harcourt, Brace &World, N.Y., 1969; Jack Douglas, Youth in Turmoil, National Institute for Mental Health, Chevy Chase, Maryland, 1970; and Erik Erikson, Identity, Youth and Crisis, W. W. Norton, New York, 1968.

9. Acceptance of the value and legitimacy of interrupting the lockstep is becoming widespread. Some elite colleges, such as Brown and Radcliffe, whose policies have national impact, accept students but defer their entry for a year to encourage broader experience. Beloit in Wisconsin goes further and provides special guidance during such a year for those students who want it. Harvard has instituted an Office of Career Services and Off-Campus Learning as an aid to the one undergraduate in five who takes out a year or more before completing his degree (a figure cited by Derek Bok in "The President's Report," Harvard Today, March 1973). Parents are reassured in the popular media that there can be valid reasons for "stopping out" and that 80% of those who drop out return to school (Business Week, April 21, 1973, p. 77). Noting the value of constructive work experience in focusing goals and interests, some institutions have integrated a program of work into their learning styles (examples include Antioch, Northeastern in Massachusetts, Drexel in Philadelphia, and Georgia Tech). The University Year for Action is a new incentive for this trend. For further discussion and proposals which encourage more such work opportunities for youth before or during college, see our paper Report on Higher Education: The Federal Role: A G.I. Bill for Community Service, Office of Education, Department of Health, Education, and Welfare, March 1973.

10. See, for example: Brent Breedin, "Veterans in College," Research Currents, ERIC Clearinghouse on Higher Education, Washington, D.C., March 1, 1972, which includes summaries of other studies; Norman Fredericksen and W.B. Schrader, Adjustment to College: A Study of 10,000 Veteran and Non-Veteran Students in Sixteen American Colleges, Educational Testing Service, Princeton, N.J., 1951; Harry Gideonse, "Educational Achievement of Veterans at Brooklyn College," Educational Record, October 1950; Keith Olson, "A Historical Analysis of the G.I. Bill and its Relationship to Higher Education," Bureau of Research, Office of Education, Department of Health, Education, and Welfare, Washington, D.C., 1968; John Paraskevopoulos and L.F. Robinson, "Comparison of College Performance of Cold War Veterans," College and University, Winter 1969. The improved performance of students -- including a group of veterans -- who reentered the University of Utah after a period of absence is documented and discussed in L. Howard Campbell and Walter Hahn, "Readmission of Former Students After Absence from the Campus: Problems and Opportunities," College and University, Winter 1962.

11. See Melissa Lewis Richter and Jan Banks Whipple, A Revolution in the Education of Women: Ten Years of Continuing Education at Sarah Lawrence College, Sarah Lawrence College, 1972, pp. 34-41. For the experiment at the University of Texas, which consisted of admitting students older than 25 without requiring SAT scores, see "College Finds Older Students Do Better," Los Angeles Times, April 6, 1973, and "Academic Status of Students 25 Years or Older Who Were Accepted to the University of Texas at Arlington Without the Admission Examination," unpublished paper, Arlington, Texas, summer 1973. See also the study by Campbell and Hahn, op. cit.

12. Fredericksen and Schrader (op. cit.) document the benefits of age diversity on campus brought about by G.I.'s.

13. See the Task Force paper A G.I. Bill for Community Service, op. cit. A bill embodying some of these ideas has already been introduced by Congressman William Steiger (the "Community Service Fellowship Act," H.R. 17084).

14. There is considerable debate over how much diversity exists. It is clear, on the one hand, that there has been a long-term trend toward institutional homogeneity, so that small institutions, sectarian institutions, single-sex institutions, and private colleges generally are educating a declining share of the population. (See Hodgkinson, Institutions in Transition, Carnegie Commission on Higher Education,

McGraw-Hill, New York, 1972, and Jencks and Riesman, op. cit., Chapter 1, and Footnotes 7-9 in Chapter 4 of this paper.) The resulting gap between the broad needs of contemporary students and the narrow traditional functions of higher education has been noted by Milton Schwebel in "Pluralism and Diversity in American Higher Education," Annals of the American Academy of Political and Social Science, Vol. 104, Nov. 1972, and by Patricia Cross in Beyond the Open Door, Jossey-Bass, San Francisco, 1971, p. 5. On the other hand, it is now clear that there is a significant trend toward diversity which aims at meeting new student needs and which is counteracting the homogenization of institutions. For examples and discussion see: Neal Berte, ed., Innovations in Undergraduate Education: Selected Institutional Profiles and Thoughts about Experimentalism, New College, University of Alabama and National Science Foundation, Birmingham, Alabama, 1972; Geroge Nolfi, Selected Problems in Innovation in American Higher Education, a study performed for the Department of Health, Education, and Welfare, University Consultants, Cambridge, Mass., 1971; Carnegie Commission on Higher Education, Reform on Campus: Changing Students, Changing Academic Programs, McGraw-Hill, New York, 1972; Ann Heiss, An Inventory of Academic Innovation and Reform, Carnegie Commission on Higher Education, Berkeley, 1972; Samuel B. Gould and K. Patricia Cross, eds., Explorations in Non-Traditional Study, Jossey-Bass, San Francisco, 1972; Ohmer Milton, Alternatives to the Traditional, Jossey-Bass, San Francisco, 1972; Diversity by Design, Commission on Non-Traditional Study, Samuel B. Gould, Chairman, Jossey-Bass, San Francisco, 1973. Recent examples of radically different institutions are described in a series of articles in Change, Vol. 1, No. 5, Feb. 1972.

15. There is ample evidence that clear institutional objectives lead to a greater impact on students (see Arthur Chickering, Education and Identity, Jossey-Bass, San Francisco, 1972, pp. 158-184). Well-established examples are Bennington College in Vermont, St. John's in Annapolis, and the Julliard School of the Performing Arts. Examples of less traditional, well-founded institutions are the University of Wisconsin at Green Bay, the College of Human Services, the John Jay College of Criminal Justice, and the Fashion Institute of Technology (the latter three in New York City).

16. Alternative approaches to the traditional styles of education are being attempted, for example, at the colleges which have incorporated the TV-correspondence format of Britain's Open

University (Empire State in New York and Minnesota Metro in St. Paul), Friend's World College (which incorporates travel as a learning experience), the New School of Social Research in New York (a flexible, interdisciplinary, individual study and project approach to professional education), Miami-Dade Junior College (an open-circuit TV external degree), Simon's Rock in Massachusetts (tutorial system and problem-solving orientation), Evergreen State College in Washington (a variety of learning modes in an approach to a broad theme which is emphasized for a semester or year), and the many institutions participating in the Union for Experimenting Colleges and Universities (each of which implement in different ways a variety of resources and styles of learning), to name only a few. Detailed description and classification of several hundred institutions manifesting new features can be found in Nolfi, op. cit. See also the sources listed in footnote 14 above.

17. For recent recommendations for more flexible learning periods, see Less Time, More Options, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1972. There is a striking lack of rationale (or cogent rationale) for many of the bureaucratic conventions characterizing American higher education. The four-year degree is a good example, for the reasons for widespread adoption of this model are not obvious. Jencks and Riesman write that, despite many nineteenth-century experiments to the contrary, most colleges had by World War I opted for a four-year baccalaureate (The Academic Revolution, Doubleday & Co., Garden City, New York, 1969, p. 31). Edward Jones and Gloria Ortner (College Credit by Examination: An Evaluation of the University of Buffalo Program, Univ. of Buffalo Studies, Vol. 21, No. 3, Univ. of Buffalo Press, Buffalo, New York, Jan. 1954) identify the following influences leading to formalization of a college education into a four-year curriculum:
1) There was little trust put in final examinations, and external examinations had no tradition in the U.S. Hence the time spent on the college campus became a convenient measure.
2) The accrediting agencies which started functioning in 1914, in seeking a standard by which to measure the colleges, promoted a theory that all students should take a prescribed amount of work in a prescribed fashion.
3) State universities or education departments have been able to regularize college practices through their control of degrees and certificates.
4) American educators cam to emphasize four years of social and intellectual campus living, quite apart from credits earned.

5) Preprofessional requirements tended to stipulate a four-year curriculum.
6) Some institutions needed four years of tuition and dormitory fees for regular budgeting.

The credit-hour system which came to be used to divide up the four-year curriculum into standardized units also rests on an arbitrary foundation. It derives from a 1906 decision by the Carnegie Commission for the Advancement of Teaching to use accumulated time in the classroom spent on a subject as the criterion for teacher retirement eligibility (Hannah Kreplin, Credit by Examination: A Review and Analysis of the Literature, Office of the Vice-President -- Planning and Analysis, University of California, Berkeley, 1971, p. 2).

18. For examples, see "Nontraditional Learning," in Warren Willingham, The Source Book for Higher Education, College Entrance Examination Board, New York, 1973, pp. 381-386. See also the sources cited in footnote 14, above, and in footnote 23, Chapter I.

19. For a description of the history of recurrent education in Europe, see Herbert E. Striner, Continuing Education as a National Capital Investment, Upjohn Institute for Employment Research, Washington, D.C., 1972. Striner provides detailed descriptions of recurrent education programs in Denmark, France and Germany. See also Gruno Stein and S.M. Miller, "Recurrent Education: An Alternative System," New Generation, Fall 1972; Dennis Kallen, "European Views on Recurrent Education," New Generation, Fall 1972; and papers presented at the Organization for Economic Cooperation and Development's Conference on Recurrent Education held at Georgetown University in March, 1973.

20. A discussion of the role of recurrent education in dealing with problems such as obsolescence and lack of career mobility can be found in Chapter 5 of Work in America, Report of a Special Task Force to the Secretary of Health, Education, and Welfare, MIT Press, Cambridge, Mass., 1973. See also Charles E. Silberman, The Myths of Automation, Harper & Row, New York, 1966, and Edwin Mansfield, The Economics of Technological Change, Norton, New York, 1968, Chapter 5.

21. See Vladimir Stoikov, "The Economics of Recurrent Education," a paper presented at the OECD Conference on Recurrent Education, Georgetown University, March 1973, particularly page 29.

22. For a discussion of "dead-end" jobs, career ladders and proposals for redesigning jobs to deal with these problems, see Work in America, op. cit., pp. 20, 32-34, 95, 121-126, and 140. Chapter 4, pp. 93-120, deals comprehensively with "The Redesign of Jobs."

    Unfortunately, career mobility is often greatly hampered by unnecessary job requirements which usually involve credentials and which are all too often designed only to unjustly restrict entry to a profession. According to the 1973 Manpower Report of the President, "It is also evident that employment qualifications established by potential employers tend to rise with the increase in the qualifications of jobseekers. If most new entrants to the labor force can present credentials indicating the completion of 4 years of high school, the status of the high school dropout suffers by comparison, quite apart from the actual requirements of the job for which the applicant is being considered." (U.S. Department of Labor, U.S. Government Printing Office, Washington, D.C., 1973).

23. There are indications that various post-secondary education programs which have been treated as "second class citizens" in the past are being judged more fairly and given more credit for being educationally effective. Federal student aid provisions have been changed in recent years to allow for more aid to students outside the traditional perimeters of higher education. Section 1202 of the Higher Education Amendments of 1972 gave a sizeable boost to the fortunes of proprietary institutions by mandating that representatives of proprietaries be included on the statewide coordinating commissions described in section 1202. The increasing usage of the term "post-secondary education" indicates that more and more people realize there is a much broader legitimate educational domain than that covered by the term "higher education" alone. The National Advisory Council on Vocational Education, established by Congress in 1968, said in a 1969 report that Americans in recent years have promoted the idea that "the only good education is an education capped by four years of college." The report branded this attitude as "snobbish, undemocratic and a revelation of why schools fail so many students." For more information on this report, see The New York Times, November 22, 1970.

24. See Fred Hechinger, "What 'Tearing Down the Walls' Can Do," The New York Times, December 27, 1970; Alan Pifer, "Is it Time for an External Degree?" College Board Review, Winter 1970-71; Amiel T. Sharon, College Credit for Off-Campus Study,

ERIC Clearinghouse on Higher Education, Washington, D.C., 1971; and John Valentine, The External Degree, College Entrance Examination Board, New York, 1972.

25. See Asa S. Knowles, ed., Handbook of College and University Administration, Vol. II, Sec. 5, McGraw-Hill, New York, 1970; John D. Krumboltz and Carl E. Thoresen, eds., Behavioral Counseling: Cases and Techniques, Holt, Reinhart, and Winston, New York, 1969; and Donald E. Super, et al., Computer-Assisted Counseling, Teachers College Press, Columbia University, New York, 1970.

26. Striner describes the French and German methods of financing recurrent education in great detail in Continuing Education as a National Capital Investment, op. cit., pp. 25, 26, 42-45, and 81-92.

27. See Striner, op. cit., pp. 61-65 and 71-74; and Frank Boddy, "Financial Options and Structural Requirements," a paper presented at the OECD Conference on Recurrent Education at Georgetown University, March 1973.

IV. NEW POLITICAL REALITIES

1. The following table shows the growth of average campus size over a twenty-year period:

PERCENTAGE OF INSTITUTIONS WITH ENROLLMENT OF

1000 or less			1000-4999		
1950	1960	1970	1950	1960	1970
76%	63%	47%	18%	28%	37%
5000-9999			**10,000 or more**		
1950	1960	1970	1950	1960	1970
3%	5%	9%	2%	4%	7%

(Source: American Council on Education Fact Book on Higher Education, Third Issue, 1972, p. 72.123.)
Approximately 40.5% of all students were enrolled in multi-campus institutions in 1968, according to the Carnegie Commission on Higher Education report by Eugene C. Lee and Frank M. Bowen, The Multicampus University, McGraw-Hill, New York, 1971, p. xix. By 1967, there were 55 campuses with 20,000 or more students enrolled. These 55 campuses enrolled a total of 1,739,000 students, or 27% of total college enrollment. Two percent of the total number of institutions in the country enrolled 25% of the students. See A Statistical Portrait of Higher Education, Seymour E. Harris, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1972, pp. 385-387.

2. By April of 1972, over 70% of the faculty at more than 28% of public two-year colleges were tenured. A similar trend of increasing percentages of tenured faculty is also occurring at four-year campuses. At the University of Colorado, officials predicted that maintaining present practices would lead in five years to a faculty that was 90% tenured. See "Tenure for College Teachers Supported," The New York Times, March 25, 1973. The figures on faculty age come from the Commission on Academic Tenure in Higher Education, Faculty Tenure, Jossey-Bass, San Francisco, 1973, p. 232.

3. Opening fall enrollment for 1972 was 9,204,156, compared to 9,025,032 in 1971, an increase of 1.9%. The average yearly increase during the 1950's was 4.6%. Between 1955 and 1960 the average increase was 6.5%, and during the 1960's it was 8.2%. Thus the percentage drop in the last few years is quite significant. These percentages were derived from opening fall enrollment figures in the American Council on Education Fact Book on Higher Education, First Issue, 1973, p. 73.9. Figures are not yet available for Fall 1973 enrollment, but there are signs that the increase this year may be even smaller than last year. A survey of 109 major state university systems and campuses by the National Association of State Universities and Land Grant Colleges found that applications for Fall 1973 had decreased by 4.2% overall as compared with the figures for Spring 1972. Last year the growth in applications was only 1.4%. (Reported in the New York Times, April 15, 1973.)

4. Between 1968 and 1973, federal funding for higher education grew from $5,204,000 to $7,400,000. See page 77, Chapter 5, for a graph showing federal spending from 1938 to 1973, and see Footnote 11 of that chapter for information on the sources of the graph.

5. The last 50-50 enrollment split between public and private institutions occurred in 1951. In 1956 the split was 57% public and 43% private.(Source: American Council on Education Fact Book on Higher Education, First Issue, 1973, p. 73.9.)

6. There are, for example, no private institutions in Wyoming. There is only one private institution in Nevada, Sierra Nevada College, which enrolls 99 people, or .6% of Nevada students. Only 10.4% of Alaska's students are enrolled in private institutions, 9.3% of Hawaii's, 9.1% of Montana's, 8% of New Mexico's, 6% of North Dakota's, and 2% of Arizona's. (Source: Education Directory: Higher Education, 1972-73, National Center for Educational Statistics, Office of Education, U.S. Department of Health, Education, and Welfare, U.S. Government Printing Office, Washington, D.C., 1972.)

7. Northampton Junior College and Malcolm X Liberation University (Greensboro, N.C.) are the examples mentioned in the text. While the number of private colleges in 1972 (1,493) is larger than the number in 1965 (1,417), that number has grown by only 76 as against an increase of 403 in public institutions, from 790 in 1965 to 1,193 in 1972. (Source: American Council on Education Fact Book on Higher Education, Third Issue, 1972, p. 72.117, and the Education Directory, 1972-1973, p. xxii.) Particularly hard-hit are women's colleges and Catholic colleges. Between 1960 and 1972, 152 of the 298 women's colleges either became coeducational or closed,

according to a study by the Educational Testing Service's College Research Center ("Women's Schools Cut Back Since '60," New York Times, May 1, 1973). In 1960, according to the same study, three of every five women's colleges were under Roman Catholic auspices; in 1972 there were only 73 Catholic women's colleges remaining, 85 having become coeducational and 27 having closed. An article in the National Catholic Reporter, Kansas City, Mo. ("See Trouble for Catholic Colleges," August 4, 1972) states that since 1971, seven of the nation's 275 Catholic colleges have closed, and six have merged.

8. The merger of six Catholic colleges since 1971 was mentioned in Footnote 6 of this chapter. The Chronicle of Higher Education lists nine mergers that have either taken place or are planned for the period 1972-1975 ("College Openings and Closings," September 4, 1973). Mergers are, however, not solely a phenomenon of the private sector; in the 1971-72 academic year, the Wisconsin State Universities became part of the University of Wisconsin system, almost doubling the size of that system. See Footnote 10 of this chapter for further discussion of the Wisconsin merger.

9. During the academic year 1957-58, tuition and required fees for a full-time undergraduate student in a public university averaged $205, and in a private university, $798, or 3.89 times as much. During academic 1969-70, the average cost at a private university was 4.47 times the cost at a public university, $1,795 as opposed to $402. (Source: Basic Student Charges, U.S. Office of Education, U.S. Government Printing Office, Washington, D.C.) Between the years 1960-61 and 1972-73, the basic costs of attending college rose by 68% for the average in-state student in residence at a public institution and by 94% for the comparable student at a private college or university. In real terms, the increases were 15% and 33% respectively (Projections of Educational Statistics to 1980-81, U.S. Office of Education, U.S. Government Printing Office, Washington, D.C., 1972, Tables 43, 44).

10. Eugene C. Lee and Frank M. Bowen, op. cit., pp. 7-8, describe the state of multi-campus universities in 1970. During that year, nine multi-campus systems enrolled 900,000 students, or 17% of all students in public four-year colleges and universities. These nine systems awarded 25% of all bachelor's degrees given in public higher education for that year. And multi-campus systems are proliferating; between 1968 and 1970, four new systems were created in Indiana, Nebraska, Massachusetts and Tennesee. They also involve immense numbers of students. In the

article "SUNY is No. 1 in Enrollment," Chronicle of Higher Education, January 3, 1972, full-time enrollment in the State University system of New York is given as 226,623. The second-largest system is that of the California State Colleges, enrolling 181,328 full-time students; third is City University of New York, with 11,288, and fourth is the University of Wisconsin system, which almost doubled in size when the Wisconsin State Universities merged with the University of Wisconsin system, and which now enrolls 108,040 full-time students. For the past several years, the New York State Legislature has discussed the possibility of merging the SUNY and CUNY systems, which would result in a giant system enrolling about 600,000 part- and full-time students.

11. See Footnote 12, Chapter 6. See Also "Education Rivalry is Worry to UT," Knoxville (Tenn.) News Sentinel, September 15, 1972, and "Politics, University Rivalries Shift Power to Illinois Board," Chronicle of Higher Education, October 30, 1972.

12. Officers of the multi-campus systems head organizations so vast that it is hard to imagine how they could maintain close contact with students or even with individual campuses. Chancellor Ernest Boyer, for instance, presides over a network of more than 70 institutions in New York State. The numbers of professional staff interposed between officers and coordinating agencies of multi-campus systems and the campuses are also very large. In California, the Board of Regents of the University of California has a professional staff of 433 individuals. The California State College Board of Trustees has a professional staff of 291, while the Board of Governors of the California Community Colleges has a staff of 98. The University of Tennessee trustees have a professional staff of 164 people, with a support staff of 168. (Statistics from the Governance Paper of this Task Fource, to be released. Source: Education Commission of the States.)

13. See Lee and Bowen, op. cit., and Warren Bennis, The Leaning Ivory Tower, Jossey-Bass, San Francisco, 1973.

14. An example of a large and strong system-wide union is the Professional Staff Congress, which represents 16,000 professional employees in the City University of New York system. The PSC was formed in 1972 from a merger of the Legislative Conference and the United Federation of College

Teachers, previously the bargaining agents for CUNY faculty and staff. The PSC describes itself as the largest university union in the country. See "Faculty Members at City U Choose a Single Bargaining Agent," New York Times, June 8, 1972. For a discussion of the aims and methods of the PSC, see "CUNY Faculty Union Encounters Hard Bargaining," Chronicle of Higher Education, September 25, 1972.

15. Ever since collective bargaining became a force on campuses, there has been a continuing debate about the causes behind unionization. In Governance of Higher Education: Six Priority Problems, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1973, the Carnegie Commission cites six causes it views as central to the expansion of unionization. They are:"1) salaries are rising more slowly; real income, in some instances, has actually been reduced; 2) budgetary support for faculty interests is much harder to obtain; 3) more efforts are being made to control conditions of employment, such as workload; 4) students have intruded into what were once faculty preserves for decision-making, and these intrusions and their possible extension are a source of worry for many faculty members; 5) external authorities, outside the reach of faculty influence, are making more of the decisions that affect the campus and the faculty; 6) policies on promotion and tenure are more of an issue both as the rate of growth of higher education slows down, thus making fewer opportunities available, and as women and members of minority groups compete more actively for such opportunities as exist" (p. 39). See also: Robert Doherty, "The National Labor Relations Act and Higher Education: Prospects and Problems," National Association of College and University Business Officers Professional File, June 1973; Robert A. Carr and Daniel K. Vaneyck, Collective Bargaining Comes to the Campus, American Council on Education, Washington, D.C., 1973; Carol H. Shulman, Collective Bargaining on Campus, ERIC Clearinghouse on Higher Education, American Association of Higher Education, Washington, D.C., 1972; Gus Tyler, "The Faculty Joins the Proletariat," Change, Winter 1971-1972; and Kenneth S. Tollett, "The Faculty and the Government," speech to the 56th Annual Meeting of the American Council on Education, Washington, D.C., October 1973.

16. See Robert K. Carr and Daniel K. Vaneyck, op. cit.; William Boyd, "Collective Bargaining in Academe: Causes and Consequences," Liberal Education, October 1971; Donald Wollett, "The Status and Trend of Collective Negotiations for

Faculty in Higher Education," Wisconsin Law Review, 1971; Kenneth S. Tollet, "The Faculty and the Government," op. cit.; and Robert E. Doherty, op. cit.

17. A classic example of attempts at greater outside control of campus life came during a recess at a 1968 New York State Legislature hearing on student disciplinary policies at the Stony Brook campus of the State University of New York. During that recess, a senator approached a Stony Brook administrator and said, "You people out there don't believe in in loco parentis, do you?" "The administrator replied, "No, I guess we don't." The senator then commented, "Well, you darn well will believe in it when we get through with you." (Reported in the Chronicle of Higher Education, March 3, 1968.) For details on faculty workload legislation, see Footnote 2, Chapter 6.

18. All too often, federal programs, for the sake of organizational convenience, have helped accelerate the trend to central control by funneling student or institutional funding through coordinating agencies. Some educators fear that the 1202 commissions mandated in the Higher Education Amendments of 1972 will exacerbate this problem. See "U.S. Involvement in State Planning Alarms Colleges," Chronicle of Higher Education, December 18, 1972. For further evidence of this trend to centralized control, see Statewide Planning for Postsecondary Education, Western Interstate Conference on Higher Education, Boulder, Colorado, 1971, pp. 35-37. For a discussion of the 1202 commissions, see Footnote 14, Chapter 6.

19. For a discussion of the causes of the proliferation of credentials and alternatives to credentialism, see S.M. Miller, "Strategies for Reducing Credentialism," ACTION, Summer 1970. Information on studies of the relationship between education and credentials and job performance is given by Ivar Berg, Education and Jobs: The Great Training Robbery, Praeger, New York, 1970.

20. Examples taken from Myron Lieberman, Tyranny of the Experts.

21. Report on Licensure and Related Health Personnel Credentialing, U.S. Department of Health, Education, and Welfare, Washington, D.C., June 1971, p. 47.

22. See Liebermann, op. cit., for a discussion of professional groups' control of educating programs.

23. Report on Licensure and Related Health Personnel Credentialing, p. 214. The Board of Registry of Medical Technologists is part of the American Society of Clinical Pathologists.

24. See Nationally Recognized Accrediting Agencies and Associations, U.S. Department of Health, Education, and Welfare, Accreditation and Institutional Eligibility Staff, Washington, D.C., March 1972.

25. See "Minimum Requirements for Admission to Legal Practice in the U.S.," Review of Legal Education, 1969.

26. For a list of accrediting agencies, see Nationally Recognized Accrediting Agencies and Associations.

V. THE FEDERAL PRESENCE IN HIGHER EDUCATION

1. A number of federal commissions have been charged with the study of policy for education beyond high school (see Charles A. Quattlebaum, Federal Educational Policies, Programs and Proposals, Part I, pp. 69-98, and Alice Rivlin, The Role of the Federal Government in Financing Higher Education, The Brookings Institution, Washington, D.C., 1961, pp. 20-23). Yet the first serious debate within the government over federal programs occurred only in 1972, over the Educational Amendments. Even then, the debate was fragmentary and did not address the G.I. Bill, Social Security benefits, or graduate student aid, since these topics did not fall within specific committee responsibility.

2. See Rivlin, op. cit., pp. 9-13, and John J. Whealen, A History of Federal Aid to Education, 1785-1965, ERIC Research in Education, document no. ED 033-161, Washington, D.C., 1965, p. 11. Aid from the Colonies for private institutions in the form of funds, land grants, state-authorized lotteries, and tax exemption preceded federal aid (see The Capitol and the Campus, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971, pp. 11-14).

3. Although the Morrill Act (1862) was clearly instrumental in legitimizing non-classical studies in agriculture, engineering, and other practical subjects, and in broadening access to provide for the practical training of women and previously excluded offspring of industrial and farm workers, the extent to which the rhetoric of land-grant reform was actually translated into reality has been questioned. From a review of primary sources for the period 1870-90, Peter Fitzgerald concludes that at the two land-grant universities of Illinois and Minnesota, the ideals of land-grant reform received but cursory implementation as evidenced by the composition of students, faculties, boards of trustees, and curricula of these institutions (Democracy, Utility and Two Land-Grant Colleges in the Nineteenth Century: The Rhetoric and the Reality of Reform, Stanford University, 1972). Despite this evidence, the long-term effects of the land-grant philosophy on the functions and forms of higher education remain substantiated. See, for example, Rivlin, op. cit., p. 9-23.

4. Relying on data from the U.S. Office of Education, June O'Neill shows peak federal funding prior to 1940 as $43.2 million in 1935-36 (Sources of Funds to Colleges and Universities, Carnegie Commission on Higher Education, Berkeley, 1973, Table A-1, p. 28).

5. Statistical Abstract of the United States, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., 1945.

6. See Figure 1, p. 77. An interesting illustration of this is noted by William G. Bowen (Economic Pressures on the Major Private Universities, Hearings on Economics and Financing of Higher Education Before Joint Economic Committee, 91st Congress, 1st Session 399, 1969): Chicago, Princeton, and Vanderbilt averaged only 1.4% from government grants and contracts in 1939-40, but 45.9% in 1965-66. Cited in Tax Reform and the Crisis of Financing Higher Education, A Report of the Association of American Universities, Washington, D.C., May, 1973, p. iv.

7. Information obtained from yet unpublished data of the National Commission for the Financing of Post-Secondary Education.

8. The most recent instance of federal support of an area of new interest is President Nixon's proposal for a five-year, $10 billion research program in energy as a part of a broad national program to meet the energy crisis.

9. Calculated from: June O'Neill, Sources of Funds to Colleges and Universities, op. cit., pp. 28-29, and U.S. Bureau of the Census, Statistical Abstract of the United States (93d edition), Washington, D.C., 1972, p. 312. Note that these expenditures were for higher education, not for the remainder of post-secondary education, which has benefited less from federal funding.

10. National Patterns of Research and Development Resources, National Science Foundation, NSF 70-46, Washington, D.C., 1972, pp. 15-18. For the background to federal involvement in academic science, see Vannevar Bush, Science, the Endless Frontier, U.S. Government Printing Office, Washington, D.C., 1945. For later developments, see J. Stefan Dupree and Sanford A. Lakoff, Science and the Nation, Prentice-Hall, Englewood Cliffs, N.J., 1962.

11. Figures 1, 4, 5, and 6 were constructed from data deriving from diverse and often conflicting sources. In attempting to discriminate between obligation and expenditure, between budget request and appropriation, for categories that are themselves subject to various definition, accuracy becomes as fortuitous as it is precarious. However, the graphs should provide a reasonable though rough picture of trends in federal funding. (Prior to 1960, funds are either on an appropriation or allotment basis except for Research and Development figures which are expenditures. For 1960-73,

figures represent outlays.) Primary sources were: Social Welfare Expenditures Under Public Programs in the United States, 1929-66, U.S. Department of Health, Education, and Welfare, Social Security Administration, Research Report No. 25, Washington, D.C., 1968; Special Analyses, Budget of the United States Government, Fiscal Years 1967-73, Washington, D.C.; National Patterns of Research and Development Resources, Funds and Manpower in the United States, 1953-71. Note: "Student Aid" includes undergraduate and graduate grants, fellowships, traineeships and support for teacher training. Before 1968, total education and administration expenditures for below-college level as well as college-level veterans are included. "Construction" represents funds for facilities and equipment. "Research and Development" includes monies for federally funded research and development centers associated with colleges and universities.

12. Early post-war decisions established a dual path for research sponsorship: the military agencies, having learned the importance of science, were determined to continue a close coupling with research, while there was at the same time a strong sense in the Congress, the Administration and the universities that much research ought to be through civilian federal sponsorship -- a concern reflected in the debate over civilian control of the Atomic Energy Commission in 1946 and the establishment of the National Science Foundation in 1950.

13. Figures 2 and 3 were constructed from data obtained in a personal communication with the National Science Foundation.

14. The concentration of research funds in relatively few universities is striking, though it has decreased slightly in the past decade: in fiscal year 1963, the top 100 recipients of research monies took 90% of the total; in 1967 they received 88% and in 1971 and 1972, 86%. The top 10 institutions received 34% in 1963, 29% in 1967, and 27% in 1971, even though they represent less than 2% of all recipients of federal research grants and less than 1/2% of all universities and colleges (Federal Support to Universities, Colleges, and Selected Non-Profit Institutions, Fiscal Year 1971, National Science Foundation, NSF 73-300, U.S. Government Printing Office, Washington, D.C., p. 11).

15. The National Youth Administration coordinated a college student work program from 1935 to 1943, serving an estimated 800,000 students. See Rivlin, op. cit., pp. 63-64, and Quattlebaum, op. cit., Part I, pp. 20-21.

16. See Rivlin, op. cit., p. 67.

17. Doctoral candidates supported by federal fellowships comprised only a few per cent in 1950, rose to 17% by 1968, and fell back to 12% by 1970 (Report on Federal Postdoctoral Support, Part I, Fellowships and Traineeships, Federal Interagency Committee on Education, Washington, D.C., April 1970, Appendix C, Tables 1-10).

18. Work-study funds were legislated in 1964 (Quattlebaum, op. cit., Part II, p. 202), Educational Opportunity Grants and Social Security Student Benefits in 1965 (ibid., p. 208 and p. 251).

19. Special Analysis, Budget of the United States Government, Fiscal Year 1974, U.S. Government Printing Office, Washington, D.C., 1973.

20. Although the Public Works Administration (and the Works Progress Administration) programs were not primarily designed to aid higher education, they did contribute significantly to construction of facilities in public colleges and universities. By 1939 almost $200,000 had been loaned under PWA College Building Projects. In addition, many campuses profited from war surplus (including whole army camps, transported to campus). For a description of these programs, see Alice Rivlin, op. cit., pp. 98-100, and Wolk, Alternative Methods of Federal Funding for Higher Education, Carnegie Commission on Higher Education Berkeley, 1968.

21. See Rivlin, op. cit., pp. 100-105, and Wolk, op. cit., p. 15.

22. The Health Research Facilities Act authorized in 1956 the first grants ($90 million) for laboratories, followed by the National Science Foundation in 1960, which subsidized graduate-level research facilities in engineering and science. The estimated annual need for an additional $1 billion for academic facilities was the genesis in 1963 of the Higher Education Facilities Act, which provided 1/3 matching grants for undergraduate facilities, and, by amendment in 1966, grants for graduate construction, loans for almost any four-year college facilities, and an annual allocation for community colleges. See Wolk, op. cit., pp. 17-22, and Joseph Froomkin, Students and Buildings, U.S. Office of Education, U.S. Government Printing Office, Washington, D.C., 1968, pp. 29-31.

23. Wolk, op. cit., p. 18.

24. West Point was founded in 1802 and Howard in 1867. See Rivlin, op. cit., pp. 108-115.

25. In 1961 appropriations from the second Morrill Act amounted to about $5 million (Rivlin, op. cit., p. 20); in 1962 they totaled $10.7 million (Fact Book, Bureau of Higher Education, Office of Education, United States Department of Health, Education, and Welfare, Washington, D.C., 1971); and in 1968 they totaled $14.5 million (Toward a Long-Range Plan for Federal Support for Higher Education, U.S. Department of Health, Education, and Welfare, Washington, D.C., 1969, Table A-4, p. 48).
For a discussion of the roots of institutional aid, and the advantages and disadvantages of this approach, see Rivlin, op. cit., pp. 9-23 and pp. 158-167.

26. Institutional aid was generated by the National Defense Education Act in 1958 (in the form of a supplement to balance tuition and educational costs incurred by the institution), and came from the National Science Foundation beginning in 1960, and the National Institutes for Health, beginning in 1961 (Wolk, op. cit., pp. 31-33).

27. The 1972 Amendments include a program of aid to institutions based on a three-part formula: (1) 45% of the funds appropriated would be distributed according to the total amount of educational opportunity grants, work-study, and National Defense Loans paid to students at each college; (2) another 45% of the appropriation would be distributed according to the number of students at each institution receiving aid from the new "BOG's" program; and (3) 10% of the aid would be based on the number of graduate students enrolled at each institution.
The provision for "bailing out" colleges and universities in the 1972 Amendments is perhaps the clearest example of a concern for institutions as institutions. Emergency assistance for institutions in financial distress would be available on grounds that "the Nation's institutions of higher education constitute a national resource which significantly contributes to the security, general welfare, and economy of the United States" (Sec. 122 [a] [1] [A], Title III, Education Amendments of 1972). Such measures and the general formula support also authorized would climax the trend from special purpose support to general institutional aid.

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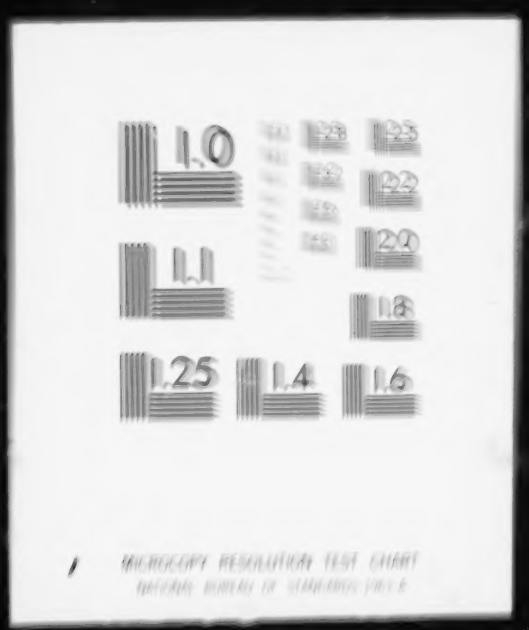

28. In 1970-71, $1,503,800,000 was volunteered for the support of the 1,080 institutions of higher education surveyed by the Council for Financial Aid to Education, from which it is estimated that $1.86 billion was contributed to all U.S. colleges and universities in that year (Voluntary Support of Education, 1970-71). Cited in Tax Reform and the Crisis of Financing Higher Education, p. 6.

29. Parents may claim a student as an exemption if they provide half the student's support. The student may claim an exemption as well (see Wolk, op. cit., p. 36). Recently the IRS granted deductions for moving expenses for educational purposes.

30. At least three proposals which have been considered by the House Ways and Means Committee would diminish contributions to higher education: (1) taxation of gifts of appreciated assets; (2) limitation of the estate tax deduction for charitable gifts to 50% of the adjusted gross estate; and (3) the establishment of a "minimum taxable income" which would limit the portion of an individual's income that could be offset by the combination of exclusions and itemized deductions to one-half.

31. The Federal government reviews the standards and procedures of accrediting agencies in determining the eligibility of institutions for federal funds, thereby extending federal sanction to these standards. See the forthcoming Task Force Paper on "Accreditation and Institutional Eligibility."

32. Affirmative Action requirements were legislated in Titles IV and VI of the 1965 Civil Rights Act, and Title IX of the 1972 Educational Amendments. The Director of the Office of Civil Rights once pointed out to the Task Force that he was the only one in the Federal government who could shut off all federal funds to a university. Despite the admirable goals of the office, this is a troubling power.

33. The Cost Accounting Standards Board, created in 1970, has tended to pressure universities to adopt uniform, industrially-oriented accounting practices, which could have affected the organizational character of the institution. For example, at one point the Board proposed the establishment of individual cost center overhead rates which, rather than encouraging the profit center approach as in industry, might instead have prompted principal investigators to seek out low-overhead departments and push for separate administrative units.

34. Emergency assistance for institutions, for which funds were authorized in the Higher Education Amendments of 1972, have yet to be appropriated. If funds are appropriated, they will be allocated on the basis of a strikingly elaborate and detailed process of review and control of college financial plans (P.L. 92-318, Sec. 122[a] [2] [C]):

> "An application shall be approved under this subsection only if it includes such information, terms, and conditions as the Commissioner finds necessary and reasonable to enable him to carry out his functions under this section, and as he determines will be in the financial interest of the United States, and the applicant agrees --
>
> (i) to disclose such financial information as the Commissioner determines to be necessary to determine the sources or causes of its financial distress and other information relating to its use of its financial resources;
>
> (ii) to conduct a comprehensive cost analysis study of its operation, including income-cost comparisons and cost per credit hour of instruction for each department, in accordance with uniform standards prescribed by the Commissioner; and
>
> (iii) to consider, and either implement or give adequate reasons in writing for not doing so, any financial or operational reform recommended by the Commissioner for the improvement of its financial condition."

35. The Environmental Protection Agency and the Justice Department have in the past attached publication restrictions to research grants which give those agencies the final decision as to whether a study is published or not. This type of regulation often conflicts with a university's policy of freedom to publish, and also conflicts with the Freedom of Information Act.

36. Many HEW, DOD and NSF appropriation bills have had "anti-riot riders" attached to them which forbid federal assistance in the form of loans, work-study, educational opportunity grants or salary (often for two years) to any student or employee of an institution of higher education who (in the language of the often-imitated Section 504 of the 1968 Higher Education Amendments, P.L. 90-575):

> "has been convicted by any court of record of any crime which was committed after the date of enactment of this Act and which involved the use (or assistance to others in the use of) force, disruption, or the seizure of property under control of any institution of higher education to prevent officials or students in such institution from

engaging in their duties or pursuing their studies," if "...such crime was of a serious nature and contributed to a substantial disruption of the administration of the institution..."

37. This proposal, which would have affected at least 15 major universities and colleges, was part of the Hebert Amendment to the 1972 House Armed Services Bill. The amendment was not included in the final act, but proponents of the original amendment have recently expressed the continued intention of sponsoring similar legislation.

38. A "policy statement concerning students on boards of trustees" was adopted as a "sense of the Congress" resolution in the Educational Amendments of 1972 (P.L. 92-318).

39. H.R. 7248 would award two-thirds of institutional aid on the basis of full-time equivalent enrollment at institutions of higher education, which means prescribing "(1) the number of earned credits which constitute enrollment on a full-time basis, and (2) a definition of 'credit' to be used for such determinations which will be substantially uniform for all institutions" (Sec. 1203 [a] [5]). This would probably mean credit proliferation and standardization of what constitutes a worthwhile academic experience, explicitly involving the Federal government in the internal life of academic institutions.

40. Since June of 1970, when the National Labor Relations Board took jurisdiction of a case at Cornell on grounds that a private university of such size had substantial impact on interstate commerce, institutions of private higher education have been treated like private corporations. For several years there has been a general tendency for states to make provision for collective bargaining by public employees; consequently, faculty at public institutions have been organizing. Information given by Philip Semas of the Chronicle of Higher Education.

41. Section 1202 of the Higher Education Amendments of 1972 requires states to establish planning commissions in order to receive certain federal funds. See Cheryl M. Fields, "U.S. Involvement in State Planning Alarms Colleges," Chronicle of Higher Education, Dec. 18, 1972, p. 1. See also Chapter VI of this paper, esp. footnote #14.

VI. THE FEDERAL ROLE IN POST-SECONDARY EDUCATION

1. For a good general discussion of forces impinging on decision-making, see John Millett, Decisionmaking and Administration in Higher Education, Kent State University Press, Kent, Ohio, 1968. The "balance of forces" concept is discussed in Chapter 7 of Statewide Planning for Postsecondary Education, Western Interstate Commission on Higher Education, Boulder, Colo., 1971. See especially pp. 103-104 and 109-112. For a discussion of the faculty's role in decision-making, see Faculty Participation in Academic Governance, American Association of Higher Education, Washington, D.C., 1967.

2. As of January, 1972, there were at least four states which had enacted legislation on faculty teaching workloads -- Michigan, Texas, Washington and Florida. A similar bill in New York was vetoed by Governor Rockefeller in 1971. The Florida law, for example, "requires full-time teaching faculty members to teach a minimum of 12 classroom contact hours per week." According to Higher Education in the States, "The legislature indicated that it is unwilling to continue to fund research at the current level and that it desires faculty members to increase their teaching in relation to research and other activities. It therefore set forth specifically in the appropriations bill a section that provided that teaching productivity and skills shall be the principal factors in granting tenure or continuing the employment of instructional personnel and prohibiting against denying tenure, promotion, or continued employment solely on the basis of failure to publish. The legislature further emphasized its desire to see an increase in teaching productivity by directly addressing and proscribing the right to limit enrollment at the upper division, and by increasing teacher productivity by about 4% in terms of student credit hours." (Higher Education in the States, October 1971).

   This teaching load legislation usually includes arbitrary formulas which attempt to quantify academic judgments. The Texas legislation, for example, mandates that classes containing more than 100 students, but less than 300 students, will count as one and one-half courses. Classes containing 300 or more students count as two classes. This approach continues throughout the bill with such subsections as "chairmanship of three doctoral student (or five masters student) committees shall be the equivalent of one course for a maximum of three years (or two years in the case of masters students)."

   For faculty reaction to these laws, see "Faculty Dissatisfaction Widespread at U. of Texas, Many Charge Political Maneuvering by Regents," Chronicle of Higher Education, May 22, 1972.

3. A concise, yet comprehensive, view of accountability in higher education can be found in Kenneth Mortimer, Accountability in Higher Education, ERIC Clearinghouse on Higher Education, Washington, D.C., 1972. Chapter 3 provides an especially good overview of external accountability, especially accountability as interpreted by governmental agencies. See also Robert M. O'Neil, The Courts, Government and Higher Education, Committee for Economic Development, New York, 1972. O'Neil describes how people have increasingly turned to the courts and other regulatory agencies in attempts to force institutions of higher education to conform to their concepts of accountability. The scenario of rapidly expanding litigation which O'Neil describes could easily apply to many other fields as well.

4. Sometimes this is a result of the failure of the public agencies to understand that public needs are often being met. For example, the attitude of many agencies towards faculty members' work loads and habits focuses on the few who are taking advantage of the system, not the efforts of most.

5. See Frank Patterson, The Consortia: Interinstitutional Cooperation in American Higher Education, unpublished draft. Patterson outlines the consortia movement, provides specific case studies and assesses the strengths, weaknesses and possible future directions for consortia. Patterson identifies more than 60 consortia and provides an extensive bibliography. According to Patterson, "The performance of consortia up to this point has not measured well against the real opportunities and needs that have existed in American higher education in the past several decades. The general failure of the moment to deliver significant academic complementarity, or significant planned cooperation in capital outlay, or significant attention to operating economies that might be achieved through cooperation, or any substantial long-range planning of change and development -- together with the continuing preeminence of institutional autonomy regardless of the redundancy of results -- reflects a major opportunity thus far lost by consortia in terms of higher education as it has been."

   See also Five College Cooperation: Directions for the Future, University of Massachusetts Press, Amherst, Mass., 1969; Expanding Opportunities: Case Studies of Interinstitutional Cooperation, Southern Regional Education Board, Atlanta, Georgia, 1969; and Winfred L. Godwin, "Interinstitutional and Interstate Cooperation in American Higher Education," a paper presented at the College of Europe symposium "Towards A European Policy of Higher Education: Goals and Methods," Brussels, Belgium, April 1973.

6. The economy of scale issue is treated in great detail in James Maynard, Some Microeconomics of Higher Education -- Economies of Scale, University of Nebraska Press, Lincoln, Nebraska, 1971. According to Maynard, "4-year colleges experience declining per-student costs until 5,363 FTE students are enrolled... The private schools usually are simply too small to enjoy the economies of scale realized by the large public institutions." (pp. 117 and 123). Discussing the cost-inefficiency of institutions with enrollments far above and below the least-cost enrollment of 5,363, Maynard says, "The obvious answer is to channel additional students into the smaller schools, public or private, bringing them to efficient size and, perhaps, pursuing positive policies to reduce gradually the size of the 'multiversities.'"

   A good example of the magnitude of home office operations can be found by looking at the State University of New York (SUNY). In the fall of 1972, SUNY had an enrollment of 364,802 students at 72 campuses. Their central office had a staff of 427 people and an annual budget of approximately $7.6 million. This information came in an October 1973 phone conversation with Harry Charlton at the SUNY central office in Albany, New York.

7. See Eric Ashby, Any Person, Any Study, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1971. Ashby cites a study made by the Bureau of Social Research at Columbia which estimated that 15% of students on American campuses are there against their own will. Ashby also discusses high attrition rates and says, "when half of those entering higher education leave it without any certificate of competence, an observer is tempted to ask whether this does not represent an enormous undisclosed prodigality of resources... American society may not be affluent enough to allow this privilege in higher education in the 1980's. It may then become unrealistic, politically too, to spend millions of dollars on places in college occupied by persons who are not gifted enough, or do not have the motivation, to benefit from the education which college provides."

8. Forcing private institutions to carry out certain orders should not be a part of state planning. Rather, state planners can work effectively with private institutions that are determining their own directions, and thus will help keep public systems competitive. Some private institutions are trans-state, even trans-national and that is helpful.

9. Santa Cruz (Calif.), Evergreen (Wash.), Empire State (N.Y.), Minnesota Metro (Minn.), Sangamon (Ill.) and New College (Ala.) are all examples of new and innovative institutions which have been established in the public sector. See Ann Heiss, An Inventory of Academic Innovation and Reform, Carnegie Commission on Higher Education, Berkeley, 1973, for small, but valuable profiles of many of the innovative institutions which have emerged in recent years. Even a cursory glance at the Heiss work will show that countless innovative institutions and procedural innovations have been established in the public sector in recent years.

10. See Chapter IV, footnotes #14, 16, 17 and 18.

11. The bases for student selection of institutions and programs are extremely complex. Often, of course, reasons for choosing a college are largely practical (proximity and cost) or somewhat arbitrary (advice of others, peer popularity). The choices are also likely to be further biased by information from counselors who are often not well-informed, and by images of institutions which are incomplete or false as a result of the manner in which colleges present themselves (see Kenneth Feldman and Theodore Newcomb, The Impact of College on Students, Jossey-Bass, San Francisco, 1969, pp. 110-114, for a discussion of factors influencing student selection of college). Nonetheless, there is evidence that students to some degree select themselves into colleges and areas of study suited to their needs and aspirations. Arthur Chickering has shown that institutions with well-defined objectives attract students who share those goals, and that similar institutions attract similar students (Education and Identity, Jossey-Bass, San Francisco, 1972, pp. 158-184).

    Within institutions, students tend to select fields on the basis of aspirations which reflect their own values, attitudes, and personality characteristics, which in turn show similarity to those of other students in the same field (Feldman and Newcomb, op. cit., pp. 151-195). A study which solicited retrospective student assessment of the adequacy of the information on which their career choices were based found that over 60% thought the information satisfactory, with only about 18% regarding it as definitely inadequate. These students also had accurate perceptions of the labor market conditions prevailing in the main professions (Richard Freedman, The Market for College-Trained Manpower: A Study in the Economics of Career Choice, Harvard University Press, Cambridge Mass., 1971, pp. 194-200).

    At the graduate level, there are several indices of sound student choice. NSF fellows, free to choose any

university,concentrated themselves in a small number of excellent institutions (Alice Rivlin, The Role of the Federal Government in Financing Higher Education, The Brookings Institution, Washington, D.C., 1961, p. 93). And students seem to have accurate assessments of market opportunities for specialized doctorate careers (Freedman, op. cit., p. 200). For further discussion and evidence for the wisdom of student choice, see Alexander Astin and Robert C. Nichols, "Progress of the Merit Scholar: An Eight Year Follow-Up," Personnel and Guidance Journal, March 1966, and Theodore W. Schulz, "Resources for Higher Education: An Economist's View," The Journal of Political Economy, May/June 1968.

12. All institutions should compete and be judged on the basis of their educational effectiveness and not their political leverage. A vivid example of the wrong kind of competition, that which is based on political muscle, was seen in the recent efforts of the large public institutions in the state of Washington to have the state legislature end the life of a new experimental campus, Evergreen State, that was effective in attracting student applications at a time when applications were down at their institutions.

13. Student-based funding provides the Federal government with a very good vehicle for preserving openness and fluidity in American post-secondary education. We believe that the G.I. Bill provided vivid proof of the fact that students are capable of making intelligent decisions about their education, based on educational effectiveness and that federal student-based funding is a major force for support of institutions based on their educational effectiveness and not their political power. The Fund for the Improvement of Postsecondary Education (FIPSE) offers another fine opportunity for the Federal government to be a force for diversity and innovation, which are key components of an open and fluid system of post-secondary education.

Some people feel that the ever-growing multi-campus systems are driving private colleges and universities out of business and are thus reducing competition. Some believe the Federal government should bring anti-trust action against some of these multi-campus systems, but state exemptions from anti-trust regulation make direct anti-trust action unlikely. Others feel that anti-trust suits should be brought against accrediting agencies for similar reasons and one proprietary institution has done so. In that case a district court judge ruled that the association was guilty of improper restraint of trade, but the decision was overturned on appeal. However, the appellate judge indicated that there could be

situations in which an accreditation association could be exercising monopolistic power in violation of anti-trust laws. See Marjorie Webster Junior College v. Middle States Association of Colleges and Secondary Schools, Inc., No. 23351, U.S. Court of Appeals, Washington, D.C., June 30, 1970.

14. Section 1201, subsection a, of the Higher Education Amendments of 1972 reads:

> "Any state which desires to receive assistance under section 1203 or Title X shall establish a State Commission or designate an existing state agency or state commission (to be known as the State Commission) which is broadly and equitably representative of the general public and public and private nonprofit and proprietary institutions of postsecondary education in the State including community colleges (as defined in Title X), junior colleges, post-secondary vocational schools, area vocational schools, technical institutes, four-year institutions of higher education and branches thereof."

Section 1203, subsection a, of these amendments reads:

> "The Commissioner is authorized to make grants to any State Commission established pursuant to section 1202(a) to enable it to expand the scope of the studies and and planning in Title X through comprehensive inventories of, and studies with respect to, all public and private postsecondary educational resources in the State, including planning necessary for such resources to be better coordinated, improved, expanded or altered so that all persons within the State who desire, and who can benefit from postsecondary education may have an opportunity to do so."

15. In 1970, the Office of Education published a series of pamphlets describing the 31 most successful compensatory education programs selected in a nationwide evaluation of projects by the American Institutes for Research. One booklet in the series describes each projects program activities, staffing and budget. It Works Series: Summaries of Selected Compensatory Education Projects, U.S. Office of Education, U.S. Government Printing Office, Washington, D.C., 1970.

16. See Federal Agencies and Black Colleges -- Fiscal 1970, Federal Inter-Agency Committee on Education, Washington, D.C., 1972; and Charles A. Quattlebaum, Federal Education Policies, Programs and Proposals -- Part 2, U.S. Government Printing Office, Washington, D.C., 1968, p. 202.

17. For examples of mission-focused colleges which aim at specific student needs and interests, see footnote 15, Chapter III.

18. For examples of colleges with an ethnic focus, see footnote 13, Chapter I.

19. The National Institute of Education has made 206 awards this year to researchers in elementary, secondary and higher education, for a total of $11.3 million in grants. The Fund for the Improvement of Postsecondary Education has currently approved 89 grants totaling $9.3 million in its first series of research awards. See Chronicle of Higher Education, July 30, 1973.

20. See Scientific American, October 1972, for a detailed look at a negative income tax experiment which was carried out in five Pennsylvania and New Jersey cities beginning in 1968. The experiment is a perfect example of trying out a concept on a small scale before any possible implementation on a national basis.

21. See footnote 3, Chapter VI.

22. The G.I. Bill is the most obvious example of a federal higher education program with major but almost completely unforeseen consequences. Similarly, the decision to extend the jurisdiction of the National Labor Relations Board to encompass institutions of higher education (see footnote 40, Chapter V) has had an impact considerably greater than initially expected. The 1202 guidelines established by the higher education amendments of 1972 have had a far-reaching impact on the structure of state governance of post-secondary education (see footnote 18, Chapter IV). In California, a law creating a committee for post-secondary education was passed in anticipation of the 1202 regulations. There has also been a tendency to continue programs even when their influence is negative, because of a lack of careful analysis. A provision in the National Defense Education Act, which allows for reduced or eliminated repayment if the student becomes a teacher, was continued despite an obvious over-supply of teachers. Weak data-keeping and analysis have clearly inhibited federal leadership.

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